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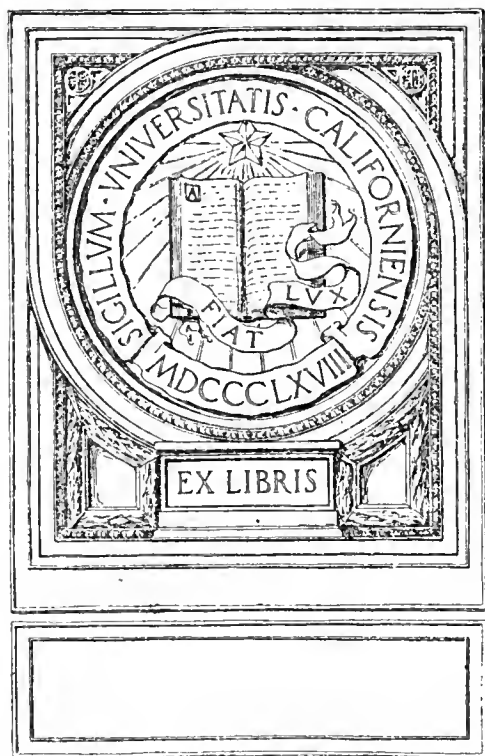


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TABLES  
OF  
THE INCOMPLETE  $\Gamma$ -FUNCTION

EDITED BY

KARL PEARSON, F.R.S.



TABLES OF INCOMPLETE GAMMA FUNCTION

ERRATA

p. xix. Lines 4 and 3 from bottom should read

the required range of  $u$  will be from

$$u_0 = 17.1303 \times 3.1637 / \sqrt{33.5973}, \text{ or } 9.3499, \text{ to } u_n = 17.1303 \times 1.0637 / \sqrt{33.5973}, \text{ or } 3.1436.$$

p. xx. The second table should read

Above	$u$	$I(u, 32.5973)$	Above	$u$	$I(u, 32.5973)$	Above	$u$	$I(u, 32.5973)$
30.85	3.1436	.00079	30.05	5.5079	.40690	29.35	7.5767	.95365
30.75	3.4392	-.00322	29.95	5.8035	-.52579	29.25	7.8722	-.97293
30.65	3.7347	-.01032	29.85	6.0990	-.63866	29.15	8.1678	-.98478
30.55	4.0302	-.02699	29.75	6.3945	-.73757	29.05	8.4633	-.99174
30.45	4.3258	-.05956	29.65	6.6901	-.81817	28.95	8.7588	-.99567
30.35	4.6213	-.11376	29.55	6.9856	-.87963	28.85	9.0544	-.99780
30.25	4.9169	-.19214	29.45	7.2812	-.92373	28.75	9.3499	-.99892
30.15	5.2124	-.29228						

The owner of these Tables is requested to paste the above corrections over the corresponding matter on pp. xix and xx. The errors are due to copying from a wrong MS. table the values of  $u$ ; the interpolations being given from the correct table.

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**TABLES**  
**OF**  
**THE INCOMPLETE  $\Gamma$ -FUNCTION**

**COMPUTED BY THE STAFF OF THE DEPARTMENT OF  
APPLIED STATISTICS, UNIVERSITY OF LONDON,  
UNIVERSITY COLLEGE**

**EDITED BY**  
**KARL PEARSON, F.R.S.**



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## PREFATORY NOTE

THESE TABLES of the Incomplete Gamma-Function have been prepared under the direction of Professor Karl Pearson by members of the staff of the Department of Applied Statistics, University College, London. The work has presented many difficulties and has extended over several years.

On the completion of the Tables Professor Karl Pearson found that the funds at his disposal for publication purposes were quite insufficient to cover the greatly increased cost of printing. He accordingly approached the Department of Scientific and Industrial Research for assistance in issuing this work.

In view of the value of the Tables to statisticians, computers and mathematicians, the Department on the recommendation of the Advisory Council arranged for publication by H.M. Stationery Office on their behalf.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH,  
16, OLD QUEEN ST., WESTMINSTER,  
LONDON, S.W. 1

*March, 1922*

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## COLLABORATORS

ARTHUR T. DOODSON  
 ETHEL M. ELDERTON  
 P. F. EVERITT  
 JAMES HENDERSON  
 M. NOEL KARN  
 MARGARET MOUL

ELEANOR PAIRMAN  
 KARL PEARSON  
 E. C. RHODES  
 MARY SEEGAR  
 KIRSTINE SMITH  
 H. E. SOPER



# INTRODUCTION

## (I) DEFINITIONS AND EXPLANATIONS OF SYMBOLS.

The complete  $\Gamma$ -function for the argument  $p$  is written  $\Gamma(p+1)$  and can be defined by

$$\Gamma(p+1) = \int_0^{\infty} e^{-x} x^p dx \dots\dots\dots(i).$$

Excellent tables for the logarithm of the complete  $\Gamma$ -function were first provided by Legendre in the second volume of his *Traité des fonctions elliptiques et des intégrales Eulériennes*, Paris, 1825-8. That work is now very scarce, but a lithographic reproduction of the  $\Gamma$ -function tables has recently been issued by the Cambridge University Press\*. A Table of the Complete  $\Gamma$ -function must be considered as a needful companion to the present volume.

Legendre's table gives twelve decimal places but only runs from the values 1 to 2 of the argument  $p$ . Other values must be reached by the fundamental formula

$$\Gamma(p+1) = p\Gamma(p),$$

by interpolation from Degen's fine table of factorials†, or by some method of approximation. Use of the fundamental formula is lengthy if  $p$  be considerably greater than 2, and methods of approximation are then as a rule followed. The method adopted may be Stirling's formula or Forsyth's; or, since what is usually needed in statistical and other practice is  $\Gamma(p+1)/(p^p e^{-p})$ , we may use for high values of  $p$ , Pearson's formula

$$\log \frac{\Gamma(p+1)}{p^p e^{-p}} = .399,089,9342 + \frac{1}{2} \log p + .080,929 \sin \left( \frac{25^\circ.623}{p} \right).$$

For accuracy to a large number of places, when  $p$  is greater than 20, Degen's tables are invaluable.

The reader will find some discussion of approximate formulae for the complete  $\Gamma$ -function in *Biometrika*, Vol. vi. p. 118.

The present book of tables it must be understood does not provide this complete  $\Gamma$ -function; it will be often required but must be found elsewhere‡.

The Incomplete  $\Gamma$ -function is defined to be  $\Gamma_x(p+1) = \int_0^x e^{-x} x^p dx \dots\dots\dots(ii),$

so that in the same symbolism the complete  $\Gamma$ -function is  $\Gamma_{\infty}(p+1)$ , but for brevity and out of respect for the historical evolution we usually drop the sign of infinity, and consider that when no value is given for  $x$  we are referring to the complete function. Such a form as (ii), however, is for many reasons neither convenient for tabulation, nor suitable for statistical use. If it were tabulated, we should have to tabulate its logarithm, for with the increase of  $p$ ,  $\Gamma_x(p+1)$  becomes very large in value. On the other hand in statistical use, where  $\Gamma_x(p+1)$  occurs as a skew probability integral, it is the ratio of  $\Gamma_x(p+1)$  to  $\Gamma_{\infty}(p+1)$ —giving the *chance* of a variation exceeding a given limit—that customarily we require.

We term  $\Gamma_x(p+1)/\Gamma_{\infty}(p+1)$  the  $I(x, p)$ -function, and it is the evaluation of the  $I(x, p)$ -function with which we are principally concerned in this book of tables. The  $I(x, p)$ -function always lies between 0 and 1, like the familiar probability integral which deals with one case of symmetrical probability. Thus  $I(x, p)$  solves our first difficulty of the great range of values involved in tabling  $\Gamma_x(p+1)$ . Those who require the absolute value of the latter function must use the present tables in conjunction with tables of the complete  $\Gamma$ -function, or with approximating formulae for that function.

The second serious difficulty which arises is that of the extreme differences in the value of the argument  $x$  which must be allowed for, if we are to table  $I(x, p)$  from zero up to unity showing seven figures. In other words the requisite range of  $x$ —since  $x$  theoretically runs from 0 to  $\infty$ —varies very much from  $p = -1$  to  $p = 50$ . In order to get over this difficulty we use as our argument not  $x$ , but  $u = x/\sqrt{p+1}$ . The range of  $u$ , still considerable, forms one of the difficulties of setting up the table, but the  $u$ -argument is far more workable than the  $x$ -argument§. The present tables therefore deal with  $I(u, p)$ , not  $I(x, p)$ . The reason for selecting the relation  $u\sqrt{p+1} = x$  will be obvious at a somewhat later stage of

\* *Tracts for Computers*, No. iv. Cambridge University Press, 1921.

† For title in full see p. xviii below.

‡ If seven-figure accuracy be adequate, Legendre's Table of the Complete  $\Gamma$ -function to that number of figures will be found in *Tables for Statisticians and Biometricians*, pp. 58-61.

§ The  $x$ -argument would have been more serviceable for interpolation in the early part of the table, say from  $p = -1$  to 1 and  $u = 0$  to 1.5, but it seemed very undesirable to change the argument for a portion of the table.

this Introduction; it is in complete analogy with the similar treatment of the symmetrical probability table.

Table I gives  $I(u, p)$  with the argument  $u$  proceeding by increments of  $\cdot 1$  from 0 up to that value of  $u$  which gives  $I(u, p) = 1\cdot 000,0000$  to the seventh decimal place. The argument  $p$  advances from  $-1\cdot 0$  to  $1\cdot 0$  by increments of  $\cdot 05$ ; from  $1\cdot 0$  to  $5\cdot 0$  by increments of  $0\cdot 1$ ; and from  $5\cdot 0$  to  $50\cdot 0$  by intervals of  $0\cdot 2$ .

Such changes of argument are essential in a table of double-entry if it is to be published at all. It is a question not only of expense but of the labour of production. The present series of tables occupies more space and has involved far more labour in computation than an ordinary table to seven figures of logarithms to base ten. To provide such a table working to seven figures by *first* differences would have more than quadrupled the work of production, and when completed the cost of publication would have been prohibitive. Further certain difficulties which arise in our system of argument ranges would still have remained. Such are the difficulties of what may be termed boundary areas. These difficulties will become very familiar to the computer when tables of double-entry are more common\*. As far as we are aware this is the first large table of double-entry which has hitherto been published, and we have had to meet the problems which such tables present both by way of choice of argument, by methods of interpolation, and in composition† without the benefit of any experience from earlier publications. In the boundary areas we are compelled to use auxiliary functions, to reduce our increments of argument or to adopt more elaborate methods of interpolation. In such areas we may find according to the nature of the function our differences divergent, or the need of using higher differences than those tabled, if we wish the same accuracy as in the bulk of the table.

Special areas of difficulty of the present table are (a) the boundary area from  $p = -1$  to  $-0\cdot 70$  about, (b) the boundary area from  $u = 0$  to  $u = 1\cdot 5$ , extending further, however, from  $p = -1$  to  $p = 10$ . The portion of the field common to these two areas is perhaps the most difficult for satisfactory interpolation.

Our function  $y = e^{-x} x^p$  has infinite differentials when  $x = 0$  and  $p$  lies between 0 and  $-1$ , and this difficulty reflects itself in the differences. It appeared idle to table the  $p$  differences for the values of  $I(u, p)$  between  $p = -1$  and  $p = -0\cdot 80$  for low values of  $u$ , and after careful consideration it was thought best to omit them entirely for the whole range as an indication to the computer using the tables that interpolation for  $p$  by ordinary formulae within this range would prove unsatisfactory. In certain portions of this range  $\delta_p^6$  and  $\delta_p^8$  might slightly better matters, but it was clearly not possible to print so many differences. As the whole of the negative  $p$  part of the table had to be calculated by brute force, the suggestion that  $p$ -arguments should proceed by  $\cdot 01$  intervals, which would have eased matters to some extent, was not only excluded by the space required‡, but also by its great demand on the time of the computers. In interpolating for  $p$  between  $-0\cdot 75$  and  $-0\cdot 65$  by central difference formulae using  $\delta_p^2$  and  $\delta_p^4$  only, we may still find an error of a unit or, in some few regions two units possibly, in the seventh decimal place. In the boundary area between  $p = -1\cdot 0$  and  $p = -0\cdot 90$  especially when  $u$  is small we must admit the fairly complete failure of difference formulae, and we are thrown back on other methods of procedure, which will be discussed later in this Introduction.

We are able to surmount some of our difficulties for  $u$  small by the use of an auxiliary function. This function is

$$I'(u, p) = I(u, p)/u^{p+1} \dots\dots\dots(iii),$$

the values of  $\log I'(u, p)$  are given in Table III§ for  $p = -1$  to 10 and  $u = 0$  to  $1\cdot 5$ ; thus the computer who has found  $I'(u, p)$  has only to add  $(p + 1) \log u$  and look out the anti-logarithm in order to obtain  $I(u, p)$ . This table will provide accurate results for  $I(u, p)$  until we approach the boundary  $p = -1$  when the old difficulties of interpolation with regard to  $p$  again occur. It does, however, enable us to interpolate accurately for  $u$  in any tabled series of values of  $I(u, p)$ .

Various other auxiliary functions were discussed in the course of the work—the aim being to find one with adequate  $\delta^2, \delta^4$  differences in the boundary region of either  $u = 0$  or  $p = 0$ . Some gave slightly better

\* See on these points K. Pearson: *Tracts for Computers*, No. III. 'On the Construction of Tables and on Interpolation.' Part II. Bi-variate Tables.

† The conflict lies between condensation of material and a uniform plan of presentation. The former decreases the cost of production at the expense of the easier handling by the computer.

‡ Table II would have required more than 100 pages of figures instead of 21 pages.

§ To compute the central differences of  $\log_{10} I'(u, p)$ , it was needful first to calculate  $\log_{10} I'(u, p)$  for  $u = 0$ , its value is then

$$\log_{10} I'_{(0,p)} = \frac{1}{2}(p - 1) \log_{10}(p + 1) - \log_{10} \Gamma(p + 1) \dots\dots\dots(iii) \text{ bis.}$$

Further it became necessary to carry the formula for  $\log_{10} I'(u, p)$  backwards into the negative values of  $u$ , if we were to obtain  $\delta^2 u$  and  $\delta^4 u$  for the  $u = 0$  central differences. The following formula gives  $\log_{10} I'(-u, p)$  in terms of  $\log_{10} I'(u, p)$  and a rapidly converging series,

$$\log_{10} I'(-u, p) = 2 \log_{10} I'(0, p) - \log_{10} I'(u, p) + \log_{10} \left\{ 1 + \frac{u^2(p+1)^2}{(p+2)^2(p+3)} + \frac{u^4(p+1)^3}{(p+2)(p+3)^2(p+4)(p+5)} + \frac{u^6(p+1)^4}{(p+2)(p+3)(p+4)^2(p+5)(p+6)(p+7)} + \dots \right\} \dots\dots\dots(iii) \text{ ter.}$$

results than  $\log I'(u, p)$ . But none were so markedly better as to warrant their adoption, as they involved several more additional terms to be calculated on each entry into the table.

From one such auxiliary function supplemented by direct calculation we proceeded to compute the value of  $I(u, p)$  at every .01 of negative  $p$  from  $p = -.99$  to  $-.75$  for the values of  $u$  from 0.9 to 6.0. We added to it by 'brute force' calculation the values from  $u = 0$  to  $u = 0.9$ , but even here the results were only reliable to five figures. Beyond the value  $u = 6.0$  we shall show that a reduction formula will give quite accurate results from the present tables. We have not succeeded in finding any satisfactory interpolation method for the area  $p = -1.0$  to  $p = 0$ , and  $u = 0$  to  $u = 6.0$  short of a table of the function for every .01 of  $p$  calculated directly. Such a table would practically mean an independent work, and it would not even then be satisfactory for the range  $p = -1.0$  to  $p = -.95$ , where still smaller argument-increments would have to be adopted.

Failing such a table we show in a later section of this Introduction how to obtain these values of  $I(u, p)$  accurately to 6 or 7 figures. As for many statistical purposes five-figure accuracy is adequate we give as Table V a table of  $I(u, p)$  from  $p = -1.0$  to  $p = -.75$  and  $u = 0$  to  $u = 6.0$  correct to five figures. It may be looked upon as a temporary aid to the computer within this area of our asymmetrical probability integral in the case of J-shaped or asymptoting frequency curves\*.

The frequency curve for which the Incomplete  $\Gamma$ -function forms the probability integral is

$$y = y_0 \left(1 + \frac{x'}{a}\right)^p e^{-\frac{px'}{a}} \dots\dots\dots (iv),$$

the origin being at the mode †. This takes the J-shaped or asymptotic form for  $p$  between  $-1.0$  and  $0.0$ .

If we write  $v = p(1 + x'/a)$ , we find  $y = y_0 \frac{e^p}{p^p} v^p e^{-v} \dots\dots\dots (v),$

and accordingly the chance that an individual shall occur within a distance 0 to  $x$  of the finite end of the curve is

$$I(v, p) = \frac{\int_0^v e^{-v} v^p dv}{\int_0^\infty e^{-v} v^p dv} \dots\dots\dots (vi), \quad \text{where } v = px/a \dots\dots\dots (vii).$$

Now the mean of this curve is  $\bar{x} = \frac{p+1}{p} a \dots\dots\dots (viii),$

and the standard deviation  $\sigma$  is given by  $\sigma = \frac{\sqrt{p+1}}{p} a \dots\dots\dots (ix).$

Accordingly  $v = \sqrt{p+1} \frac{x}{\sigma} \dots\dots\dots (x).$

Thus if  $u$  be the ratio of a deviation, measured from the start of the frequency, to the standard deviation,  $u = x/\sigma$  and

$$v = \sqrt{p+1} u \dots\dots\dots (xi).$$

Thus  $I(u, p) = \frac{\int_0^{u\sqrt{p+1}} e^{-v} v^p dv}{\Gamma(p+1)} \dots\dots\dots (xii),$

which is the function tabled in Table I. It is therefore the probability integral of the skew curve

$$y = y_0 \left(1 + \frac{x'}{a}\right)^p e^{-\frac{px'}{a}}$$

after proper transformation of the constants ‡. The usual statistical constants of this curve are found by determining the moment coefficients  $\mu_2, \mu_3, \mu_4$  about the mean where  $\mu_s = S(x - \bar{x})^s / N$ , where  $N$  is the total population or frequency. We further take  $\beta_1 = \mu_3^2 / \mu_2^3, \beta_2 = \mu_4 / \mu_2^2$ , and it will be necessary (if not wholly sufficient) that

$$2\beta_2 - 3\beta_1 - 6 = 0 \dots\dots\dots (xiii).$$

\* Even here the reader must be cautioned against rash interpolations between  $u = 0$  and  $u = 1.0$  into this table: see later, p. xiii.

† *Phil. Trans.* Vol. 180 A, p. 373.

‡ Our tables do not of course cover all skew variation, but they provide 'probability integrals' for some 520 skew curves, distributed along the line  $2\beta_2 - 3\beta_1 - 6 = 0$ . The ordinary probability integral table covers only one curve on this line, that which corresponds to the point  $\beta_1 = 0, \beta_2 = 3$ .

We have further by integration from (v) and transference to mean

$$\mu_2 = \frac{p+1}{p^2} a^2, \quad \mu_3 = \frac{2(p+1)}{p^3} a^3, \quad \mu_4 = \frac{3(p+1)(p+3)}{p^4} a^4 \quad \dots\dots\dots(xiv)$$

leading to

$$\beta_1 = 4/(p+1), \quad \beta_2 = 3 + 6/(p+1) \dots\dots\dots(xv).$$

Having found  $\beta_1$  and  $\beta_2$  from our observations we test (xiii) to see if it be reasonably satisfied; we find  $p$  from  $\beta_1$  and then  $a$  from (ix), since  $\sigma = \sqrt{\mu_2}$  is known from the observations; and we obtain  $y_0$  from the consideration that

$$N = \int_{-a}^{\infty} y dx' = y_0 \frac{e^p}{p^p} \frac{a}{p} \int_0^{\infty} v^p e^{-v} dv = y_0 \frac{e^p}{p^p} \frac{\sigma}{\sqrt{p+1}} \Gamma(p+1);$$

or

$$y_0 = \frac{N p^p e^{-p} \sqrt{p+1}}{\sigma \Gamma(p+1)} = \frac{N}{\sigma} \chi(p) \quad \dots\dots\dots(xvi).$$

$$a = \text{Distance from finite tail of curve to mode} = (p/\sqrt{p+1}) \sigma \quad \dots\dots\dots(xvii).$$

$$D = \text{Distance from mode to mean} = \bar{x} - a = (\sigma/\sqrt{p+1}) \quad \dots\dots\dots(xviii).$$

$$\text{Skewness (= Sk.)} = \frac{\text{Distance from mode to mean}}{\text{Standard deviation}} = \frac{1}{\sqrt{p+1}} \dots\dots\dots(xix).$$

If  $d$  be the distance from mode to median, *i.e.* the abscissa of ordinate which bisects area of curve\*,

$$\frac{d}{D} = .6666,6667 + .0197,5309 (\text{Sk.})^2 + .0072,1144 (\text{Sk.})^4 + 0003,8554 (\text{Sk.})^6 \quad \dots\dots\dots(xx),$$

which enables us to determine very easily the median value.

Table IV enables us as soon as  $\beta_1$  and  $\sigma$  are known from our observations to determine readily  $p$ ,  $a$ ,  $D$ , Sk., and  $\chi(p)$  giving  $y_0$  from (xvi).

The main tables for  $I(u, p)$  will then provide the probability of the occurrence of a deviation exceeding any given size. In other words our tables provide for a wide range of skew frequency curves exactly what the normal probability integral table does for a special symmetrical or Gaussian type of frequency.

The great cost of printing has hindered the issue at the same time of a table of ordinates. These can, however, be readily calculated when a diagram is desired from Table XXVI of the *Tables for Statisticians*.

## (II) HISTORY OF THE PRESENT TABLES.

The present tables were planned in 1903 or 1904 and a start made on them in 1905†. But the method then adopted, which consisted in expanding the integral in incomplete normal moment functions was found to be inadequate in exactness, and, after a great deal of work had been done, had to be discarded‡. In 1913 Mr P. F. Everitt at the writer's suggestion restarted the work on a new plan tabling in terms of the standard deviation as unit. This for the first time gave a reasonable scheme for the abscissa argument for various values of the power argument. Mr Everitt used the formula

$$I(u, p) = \frac{1}{\Gamma(p+1)} \int_0^{u\sqrt{p+1}} v^p e^{-v} dv,$$

and found to *six* places of decimals by quadratures the value of this integral for

$$p = 0.5, 1, 6, 10, 12, 14, 16, 18, 20, 25 \text{ and } 30.$$

He then found by the series expansion the same integral for  $p = 1, 2, 3, 4, 5, 6$  and  $8$ . His work showed the possibility of constructing an Incomplete  $\Gamma$ -function table on these lines. Mr Everitt also pointed out the relation between  $I(u, p)$  and the  $P$  of the 'Goodness of Fit' Tables (*Tables for Statisticians*, Table XII), namely  $I(u, p) = 1 - P$  if  $n' = 2p + 3$  and  $\frac{1}{2}\chi^2 = 2u\sqrt{p+1}$ . This served as a check on the correctness of certain isolated values of the function. From the mathematical standpoint this relation enables us to sum the first  $p+1$  terms of the exponential expansion, *i.e.* their sum =  $e^x \{1 - I(p, x)\}$  and is found at once from Table I.

\* See A. T. Doodson, *Biometrika*, Vol. xi. p. 428.

† See *Biometrika*, Vol. v. p. 173.

‡ That work was designed to cover both incomplete  $\Gamma$ - and  $B$ -functions and gives fairly accurately the area for some distance on either side of the mode by a reasonable number of normal moment functions. At a considerable distance from the mode so many normal moment functions are required and their coefficients are such complicated functions of the parameters that the method becomes inadequate. The incomplete normal moment functions up to the tenth were computed in the first place for this purpose, but they serve various other not unimportant ends. They were published in *Biometrika*, Vol. vi. p. 68, 1908.

The tables were again taken up in 1915 and 1916, but we discarded the idea of a six-figure table and determined to base our work on a 'frame' going to eight figures calculated by quadratures for every unit of  $p$  from 0 to 50 and proceeding by 0.1 increments of  $u$ . Such a 'frame' was calculated in part by Dr Arthur T. Doodson and in part by Dr Kirstine Smith. The bulk of this frame was obtained by using Weddle's quadrature formula, but this was not found sufficiently accurate for some of the values of  $u$  from 0 to 1.0. Accordingly the top of the table was obtained by the expansion formula for each individual value of  $u$  and  $p$ , and this was continued just so far as there was any difference in result in the quadrature and series processes. This 'frame' was found adequate to complete the table from  $p = 15$  to  $p = 50$  using either 8- or 10-point interpolation formulae. The work of interpolation from 15 to 25 was carried out by Dr Kirstine Smith during 1917. The whole matter was then laid aside as the available computers were in great demand for gunnery work. In September 1918 Miss Ethel M. Elderton took charge of the remainder of the work, and she was ably assisted by Miss M. Noel Karn and later by Miss M. Seegar. They completed the interpolation from  $p = 25$  to 50. Working backwards from 15, it was found that even 10-point Lagrangian formulae were not accurate enough when  $p$  proceeded by unit values. It became needful to reduce the intervals of the 'frame' by proceeding to half units in  $p$ . Now the half units in  $p$  correspond to cases in which the function  $I(u, p)$  can be thrown back on the probability integral and the ordinate of the Gaussian curve of errors. For example,

$$I(u, 3.5) = -e^{-u\sqrt{4.5}} \frac{(u\sqrt{4.5})^{1.5} (4.5u^2 + 3.5u\sqrt{4.5} + 8.75)}{6.5625\sqrt{\pi}} + 2\left\{-\frac{1}{2} - xz + \frac{1}{2}(1 + \alpha)\right\} \dots (xxi),$$

where  $x = \sqrt{3u\sqrt{2}}$ ,  $z = (1/\sqrt{2\pi})e^{-\frac{1}{2}x^2}$  and  $\frac{1}{2}(1 + \alpha)$  is the value of the probability integral corresponding to  $x$ . The half unit points were accordingly calculated from formulae like the above, and we have to thank Dr W. F. Sheppard for the loan of his tables of the probability ordinate and integral which go to more figures than the published versions of them\*. These were needful in order to obtain seven-figure accuracy in our tables. The additional values of  $I(u, p)$  at half units of  $p$ , together with those at  $p = 5.5$  and 6.5 required for certain differences, enabled us by interpolation to carry the table back to  $p = 1.2$ . From  $p = 1.2$  to  $-0.95$  it became needful to calculate  $I(u, p)$  for every  $p$  in the table. This was chiefly done by quadrature of the integral using Weddle's formula. This method failed, however, for values of  $u$  between 0 and 1, and here integration by parts had to be used. The .10 values of  $p$  in Table II were computed by Miss M. Seegar and Miss E. Pairman; the .05 values by Miss E. M. Elderton, Mr E. C. Rhodes and Miss M. N. Karn. The table thus formed permits accurate interpolation to seven figures for any value of  $u$  greater than 1.5 for a recorded value of  $p$ .

The table for  $\log I'(u, p)$ , chiefly calculated by Miss M. N. Karn and K. Pearson, permits interpolation for  $u$  less than 1.5, also for recorded values of  $p$ . Below  $p = -.75$  to  $-.95$ , interpolation from our tables even with a 10-point Lagrangian formula will only give about five-figure accuracy for  $u < 6.0$ . Over this area, unless he has to deal with a recorded value of  $p$ , the reader will probably find it best to content himself with five-figure accuracy and use the five-figure table (Table V) or, where available, the adjusted table (p. xiv) for each .01 of  $p$  up to  $u = 6.0$ . They are due to Miss E. M. Elderton and Miss M. Moul.

Finally we may note that K. Pearson and H. E. Soper prepared the table of the constants of the skew curve (Table IV); that E. C. Rhodes contributed largely to the series of differences and in association with Miss E. M. Elderton did most of the proof reading, which consisted in checking the printed tables from the original eight-figure working sheets. Besides those, whose names are referred to in the above historical account, it may be safely said that hardly any worker in the Laboratory during the last ten years has failed to contribute in some way to the progress of 'Gamma.' The casual user of these tables may hardly appreciate the labour involved and may indeed believe that they could have been in many ways bettered. There are always difficulties about cooperative work of this kind, when the workers are numerous and the task a protracted one. The scope of the tables themselves and the methods of computing have changed in the course of our labours. We trust that there are few errors and few misprints in the tables as now issued; at any rate we have done what lay in our power to avoid them. On the other hand we are as conscious as any user of these tables can possibly be of their defects. These have already been partially indicated in the preceding pages and will be referred to again in the following sections of this Introduction. We believe that they lie in the very nature of the function which it has been our lot to tabulate. For  $p = -1$  the differentials with regard to  $p$  of  $I(u, p)$  become infinite; and, for low values of  $p$ , fairly low differentials of  $I(u, p)$  with regard to  $u$  become infinite for  $u = 0$ . Thus ordinary interpolation formulae fail. It would take too much space to describe the various interpolation formulae, not based on the fitting of high order parabolae, we have tried. It suffices to say that in all cases they involved computations as long and less accurate than computing *de novo* an integration by parts or a quadrature by Weddle's formula.

\* *Tables for Statisticians*, Tables I and II.

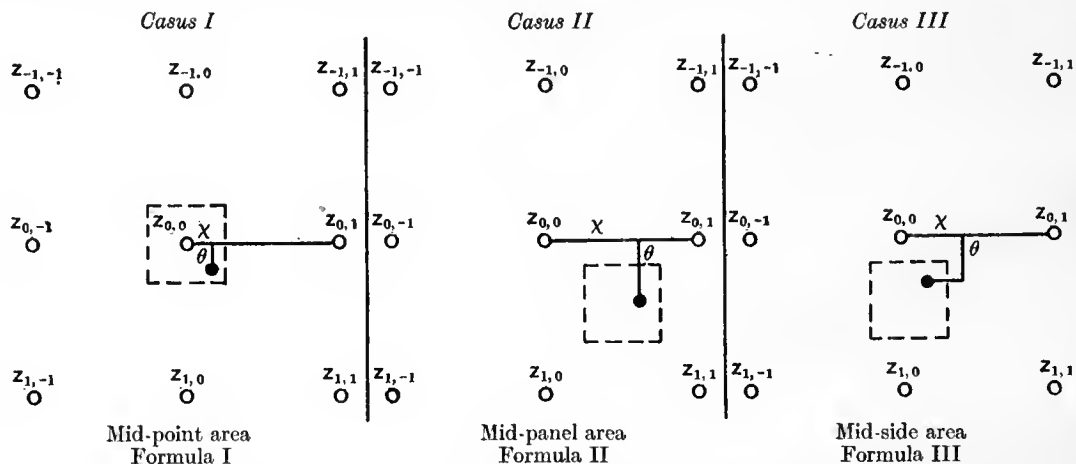
(III) INSTRUCTIONS AS TO USE OF THE TABLES.

The accompanying *Key* (p. xi) gives the methods likely to prove most serviceable for obtaining the value of the Incomplete  $\Gamma$ -function for the corresponding values of  $u$  and  $p$ . Our tables had necessarily to stop at some value of  $p$  and this was chosen at  $p = 50.0$ . This limit was not set by any peculiar fitness in  $p = 50$ , but by the necessity for limiting the labour involved. We feel accordingly a need for advising the computer how to proceed when  $p$  is  $> 50$ . Further we have warned the reader of this Introduction that ordinary interpolation will fail to give great accuracy when  $u$  is small and  $p$  negative, or when  $p$  is less than  $-.75$  and  $u$  not small. Of the 36 regions into which the *Key* divides the range of values of  $u$  and  $p$ , ten (7, 14, 15, 16, 23, 24, 25, 32, 33, 34) are to seven-figure accuracy provided directly for by Table I. A further six (12, 13, 21, 22, 30, 31) are provided for to the same accuracy by Table II. Finally two more areas (5, 6) may be dealt with by Table III.

If only five-figure accuracy is required then Table III (3, 4), Table II (20, 29) and Table V (2, 11) cover six further regions and leave only twelve remaining regions to be dealt with. Of these the function is zero in two (8, 9); for six further ones (17, 18, 26, 27, 35, 36), which fall outside the range of our present tables, methods of attack must be described. The remaining four regions (1, 10, 19, 28) fall into the difficult area of  $p$  between  $-.99$  and  $-1.00$ , where no method of interpolation has so far proved effectual. We shall proceed to consider the individual areas after we have dealt with two points, (a) the interpolation formulae for bi-variate tables and (b) the reduction formulae for the Incomplete  $\Gamma$ -function.

(a) *Interpolation Formulae for Bi-Variate Tables.*

The present editor has discussed elsewhere\* the formulae requisite for bi-variate interpolation. Unfortunately he followed somewhat too closely the ideas in Newton's *Methodus Differentialis*, and expanding Newton's methods of *Casus I* and *Casus II* overlooked the fact that beside a mid-panel and a mid-point central difference formula when we come to bi-variate functions there will be a *Casus III*, namely a mid-line or mid-side formula. This oversight is here rectified. The suitable interpolation areas for applying the three formulae are indicated in the accompanying diagram.



The coordinates of the interpolate into the table (argument-increment as unit) are as above  $\theta$  and  $\chi$ . Further  $\phi = 1 - \theta$ ,  $\psi = 1 - \chi$ , and the central differences are

$$\begin{aligned} \delta^2 z_{ss'} &= z_{s+1, s'} + z_{s-1, s'} - 2z_{s, s'}, & \delta^4 z_{ss'} &= \delta^2 z_{s+1, s'} + \delta^2 z_{s-1, s'} - 2\delta^2 z_{s, s'}, \\ \delta'^2 z_{ss'} &= z_{s, s'+1} + z_{s, s'-1} - 2z_{s, s'}, & \delta'^4 z_{ss'} &= \delta^2 z_{s, s'+1} + \delta^2 z_{s, s'-1} - 2\delta^2 z_{s, s'}, \\ \delta^2 \delta'^2 z_{ss'} &= \delta'^2 z_{s+1, s'} + \delta'^2 z_{s-1, s'} - 2\delta'^2 z_{s, s'} = \delta^2 z_{s, s'+1} + \delta^2 z_{s, s'-1} - 2\delta^2 z_{s, s'}. \end{aligned}$$

In our case  $\delta^2$  will refer to  $u$  and  $\delta'^2$  to  $p$ . The signs of  $\chi$  and  $\theta$  must follow those of first and second subscript respectively. It will be seen that in *Casus I*, the Mid-point Central Difference Formula, there are five adjacent points, and the interpolants are the values of the function and its differences at these points. In *Casus II* there are only four next nearest points, while in *Casus III* there are no less than six interpolants concerned. Thus, as in uni-variate interpolation, preference is very often given to *Casus II* (Everett's Central Difference Formula) on account of its greater simplicity, and its use is extended with

\* 'On the Construction of Tables and Interpolation,' Part II. Bi-Variate Tables. *Tracts for Computers*, No. III. Cambridge University Press.

*Key to Methods of Computing the Incomplete  $\Gamma$ -Function.*

Value of $u$	Value of $p$										Value of $u$
	-1.00 to -0.99	-0.99 to -0.75	-0.75 to -0.65	-0.65 to -0.50	0.0 to 0.50	0.50 to 1.00	1.00 to 50.0	50.0 to 70.0	Above 70.0		
0.0 to 1.5	1 xv, xx Method A (7 decimals or more)	2 xv, xx, xxi Table V adjusted (5 decimals) Method A (7 decimals or more)	3 xv, xx, xxvi Table III (5 decimals) Method A (7 decimals or more)	4 xxvi, xxvii Table III (6 decimals) Method C (7 decimals)	5 xxvi, xii Table III (7 decimals)	6 xii, xxiii- Table III (7 decimals) or Table I (7 decimals)	7 xii, xxiii- Table I (7 decimals)	8 ... Function zero to 7 decimals	9 ... Function zero to 7 decimals	Above 70.0	Value of $u$ 0.0 to 1.5
1.5 to 6.0	10 xv, xii, xxv Method A (7 decimals or more)	11 xv, xii, xx Table V (5 decimals) Method A (7 decimals or more)	12 xii, xxvii- Table II (7 decimals)	13 xii, xxvii- Table II (7 decimals)	14 xii, xxvii- Table I (7 decimals)	15 xii, xxvii- Table I (7 decimals)	16 xii, xxvii- Table I (7 decimals)	17 xvi, xxvii- Methods D' or D (7 decimals)	18 xvi, xviii, xxvii, xxx Method D' or use Weddle's Formula, 18 to 24 ordinates (about 6 decimals)	1.5 to 6.0	
6.0 and upwards	19 xv, xx, xxi Method A, up to $u=10$ (7 decimals or more) Method B, $u > 10$ (7 decimals)	20 xv, xxi, xii Table II (5 decimals) Method B (7 decimals)	21 xii, xxvii- Table II (7 decimals)	22 xii, xxvii- Table II (7 decimals)	23 xii, xxvii- Table I (7 decimals)	24 xii, xxvii- Table I (7 decimals)	25 xii, xxvii- Table I (7 decimals)	26 xvi, xxvii Method D $u < \sqrt{p+1}$ Method D $u > \sqrt{p+1}$	27 xviii, xxx Use Weddle's Formula, 18 to 24 ordinates (about 6 decimals)	6.0 and upwards	
$u$ of the order $\sqrt{p+1}$	28 Methods as above	29 Methods as above	30 Methods as above	31 Methods as above	32 xi, xxvii- Tables I or III (7 decimals)	33 xi, xxvii- Table I (7 decimals)	34 xi, xxvii- Table I (7 decimals)	35 xvi, xix, xxviii Method E (7 decimals) Method E'	36 xvi, xix, xxviii Method E (7 decimals) Method E'	$u$ of the order $\sqrt{p+1}$	

The above Key enables the computer to see at a glance what appears at present to be the most suitable method of obtaining the value of any Incomplete  $\Gamma$ -function. Where alternative methods are provided the choice must depend on the number of decimal places required.

The number of decimals indicated is, of course, only approximative and in certain cases there may be a slight error in the last figure.

The Roman numerals refer to the pages of the Introduction where the methods will be found discussed.

increasing inexactitude to *Casus I* or *Casus III*. In the bulk of the area covered by the present tables, this may only mean a unit in the seven-figure, but if a maximum of exactness is required the appropriate *Casus* should be used. The following are the formulæ to be used:

*Casus I. Mid-point Central Difference Interpolation Formula.*

$$\begin{aligned}
 z_{\theta, \chi} = & z_{0,0} + \frac{1}{2}\chi(z_{0,1} - z_{0,-1}) + \frac{1}{2}\theta(z_{1,0} - z_{-1,0}) + \frac{1}{4}\theta\chi(z_{1,1} - z_{1,-1} - z_{-1,1} + z_{-1,-1}) \\
 & + \frac{1}{2}\chi^2(1 - \frac{1}{2}\theta^2)\delta'^2z_{0,0} + \frac{1}{2}\theta^2(1 - \frac{1}{2}\chi^2)\delta^2z_{0,0} + \frac{1}{8}\theta^2\chi^2(\delta'^2z_{1,0} + \delta'^2z_{-1,0} + \delta^2z_{0,1} + \delta^2z_{0,-1}) \\
 & + \frac{1}{4}\theta^2\chi(\delta^2z_{0,1} - \delta^2z_{0,-1}) + \frac{1}{4}\theta\chi^2(\delta'^2z_{1,0} - \delta'^2z_{-1,0}) \\
 & - \frac{1}{12}\theta(1 - \theta^2)(\delta^2z_{1,0} - \delta^2z_{-1,0}) - \frac{1}{12}\chi(1 - \chi^2)(\delta'^2z_{0,1} - \delta'^2z_{0,-1}) \\
 & - \frac{1}{24}\theta\chi(1 - \theta^2)(\delta^2z_{1,1} - \delta^2z_{1,-1} - \delta^2z_{-1,1} + \delta^2z_{-1,-1}) - \frac{1}{24}\theta\chi(1 - \chi^2)(\delta'^2z_{1,1} - \delta'^2z_{1,-1} - \delta'^2z_{-1,1} + \delta'^2z_{-1,-1}) \\
 & - \frac{1}{24}\theta^2(1 - \theta^2)\delta^4z_{0,0} - \frac{1}{24}\chi^2(1 - \chi^2)\delta'^4z_{0,0} \dots\dots\dots(\text{xxii}).
 \end{aligned}$$

*Casus II. Mid-panel Central Difference Interpolation Formula.*

$$\begin{aligned}
 z_{\theta, \chi} = & \phi\psi z_{0,0} + \phi\chi z_{0,1} + \theta\psi z_{1,0} + \theta\chi z_{1,1} \\
 & - \frac{1}{6}\theta\phi\{(1 + \phi)(\psi\delta^2z_{0,0} + \chi\delta^2z_{0,1}) + (1 + \theta)(\psi\delta^2z_{1,0} + \chi\delta^2z_{1,1})\} \\
 & - \frac{1}{6}\theta\psi\{(1 + \psi)(\phi\delta'^2z_{0,0} + \theta\delta'^2z_{1,0}) + (1 + \chi)(\phi\delta'^2z_{0,1} + \theta\delta'^2z_{1,1})\} \\
 & + \frac{1}{12}\theta\phi(1 + \theta)(1 + \phi)\{(2 + \phi)(\psi\delta^4z_{0,0} + \chi\delta^4z_{0,1}) + (2 + \theta)(\psi\delta^4z_{1,0} + \chi\delta^4z_{1,1})\} \\
 & + \frac{1}{36}\theta\phi\chi\psi\{(1 + \phi)(1 + \psi)\delta^2\delta'^2z_{0,0} + (1 + \phi)(1 + \chi)\delta^2\delta'^2z_{0,1} + (1 + \theta)(1 + \psi)\delta^2\delta'^2z_{1,0} + (1 + \theta)(1 + \chi)\delta^2\delta'^2z_{1,1}\} \\
 & + \frac{1}{12}\theta\chi\psi(1 + \chi)(1 + \psi)\{(2 + \psi)(\phi\delta'^4z_{0,0} + \theta\delta'^4z_{1,0}) + (2 + \chi)(\phi\delta'^4z_{0,1} + \theta\delta'^4z_{1,1})\} \dots\dots\dots(\text{xxiii}).
 \end{aligned}$$

*Casus III. Mid-side Central Difference Interpolation Formula.*

$$\begin{aligned}
 z_{\theta, \chi} = & \phi z_{0,0} + \theta z_{1,0} + \frac{1}{2}\chi\phi(z_{0,1} - z_{0,-1}) + \frac{1}{2}\chi\theta(z_{1,1} - z_{1,-1}) \\
 & + \frac{1}{2}\chi^2(\phi\delta'^2z_{0,0} + \theta\delta'^2z_{1,0}) - \frac{1}{6}\theta\phi\{(1 + \phi)\delta^2z_{0,0} + (1 + \theta)\delta^2z_{1,0}\} \\
 & - \frac{1}{12}\theta\phi\chi\{(\phi + \theta)(\delta^2z_{0,1} - \delta^2z_{0,-1}) + (1 + \theta)(\delta^2z_{1,1} - \delta^2z_{1,-1})\} \\
 & - \frac{1}{12}\chi(1 - \chi^2)\{\phi(\delta'^2z_{0,1} - \delta'^2z_{0,-1}) + \theta(\delta'^2z_{1,1} - \delta'^2z_{1,-1})\} - \frac{1}{12}\chi^2\theta\phi\{(1 + \phi)\delta^2\delta'^2z_{0,0} + (1 + \theta)\delta^2\delta'^2z_{1,0}\} \\
 & + \frac{1}{12}\theta(1 + \theta)\phi(1 + \phi)\{(2 + \phi)\delta^4z_{0,0} + (2 + \theta)\delta^4z_{1,0}\} - \frac{1}{24}\chi^2(1 - \chi^2)\{\phi\delta'^4z_{0,0} + \theta\delta'^4z_{1,0}\} \dots\dots\dots(\text{xxiv}).
 \end{aligned}$$

Formula (xxiii) has besides its generally symmetrical form this advantage over Formulæ (xxii) and (xxiv); it is true up to, but not including, terms of the *sixth* order in the differences. On the other hand, (xxii) and (xxiv) are only true up to, but not including, terms of the fifth order in the differences\*. Hence if we work only to fourth order differences it is possible that *Casus II* might give a slightly better result than *Casus I* or *Casus III* even within the appropriate areas of those formulæ. But if fifth differences are negligible then each of these formulæ should give the best result of the three in its own region. We now turn to the labour involved in each case.

*Casus I* involves no cross-differences. We have to take out 9 function values, 20 tabulated differences and compute 12 coefficients.

*Casus II*. We have to take out 4 function values, 16 tabulated differences, and calculate 4 cross-differences. This involves taking out another 4 second differences or we need 20 tabulated differences in all. We have to compute, however, no less than 24 coefficients†.

*Casus III*. This involves the taking out of 6 function values and 10 tabulated differences, and the computation of 2 cross-differences. It will be found, however, that these two cross-differences do not involve any second differences which have not already been extracted. In fact we can if we please write the Mid-side Central Difference Interpolation Formula as:

\* The fifth order terms in *Casus I* are:

$$\begin{aligned}
 -\frac{1}{48}\theta^2(1 - \theta^2)\chi(\delta^4z_{0,1} - \delta^4z_{0,-1}) - \frac{1}{48}\chi^2(1 - \chi^2)\theta(\delta^4z_{1,0} - \delta^4z_{-1,0}) + \frac{1}{24}\theta(1 - \theta^2)(4 - \theta^2)(\delta^4z_{1,0} - \delta^4z_{-1,0}) \\
 + \frac{1}{24}\theta\chi(1 - \chi^2)(4 - \chi^2)(\delta'^4z_{0,1} - \delta'^4z_{0,-1}) - \frac{1}{24}\chi^2\theta(1 - \theta^2)(\delta^2\delta'^2z_{1,0} - \delta^2\delta'^2z_{-1,0}) - \frac{1}{24}\theta^2\chi(1 - \chi^2)(\delta^2\delta'^2z_{0,1} - \delta^2\delta'^2z_{0,-1}).
 \end{aligned}$$

The fifth order terms in *Casus III* are:

$$\begin{aligned}
 \frac{1}{12}\chi(1 - \chi^2)\theta\phi\{(1 + \phi)(\delta^2\delta'^2z_{0,1} - \delta^2\delta'^2z_{0,-1}) + (1 + \theta)(\delta^2\delta'^2z_{1,1} - \delta^2\delta'^2z_{1,-1})\} \\
 + \frac{1}{24}\theta\chi(1 + \theta)\phi(1 + \phi)\{(2 + \phi)(\delta^4z_{0,1} - \delta^4z_{0,-1}) + (2 + \theta)(\delta^4z_{1,1} - \delta^4z_{1,-1})\} + \frac{1}{24}\theta\chi(1 - \chi^2)(4 - \chi^2)\{\phi(\delta^4z_{0,1} - \delta^4z_{0,-1}) + \theta(\delta^4z_{1,1} - \delta^4z_{1,-1})\}.
 \end{aligned}$$

† We count as a coefficient any case where at least a product of  $\theta, \phi, \chi, \psi$ , is involved.



$$\begin{aligned}
\text{Casus III. } z_{\theta, \chi} &= \phi z_{0,0} + \theta z_{1,0} + \frac{1}{2} \chi \phi (z_{0,1} - z_{0,-1}) + \frac{1}{2} \chi \theta (z_{1,1} - z_{1,-1}) \\
&\quad + \frac{1}{2} \chi^2 (\phi \delta'^2 z_{0,0} + \theta \delta'^2 z_{1,0}) - \frac{1}{6} (1 - \chi^2) \phi (1 - \phi^2) \delta^2 z_{0,0} - \frac{1}{6} (1 - \chi^2) \theta (1 - \theta^2) \delta^2 z_{1,0} \\
&- \frac{1}{2} \chi \frac{\phi (1 - \phi^2)}{3!} \{(1 + \chi) \delta^2 z_{0,1} - (1 - \chi) \delta^2 z_{0,-1}\} - \frac{1}{2} \chi \frac{\theta (1 - \theta^2)}{3!} \{(1 + \chi) \delta^2 z_{1,1} - (1 - \chi) \delta^2 z_{1,-1}\} \\
&- \frac{1}{2} \phi \frac{\chi (1 - \chi^2)}{3!} (\delta'^2 z_{0,1} - \delta'^2 z_{0,-1}) - \frac{1}{2} \theta \frac{\chi (1 - \chi^2)}{3!} (\delta'^2 z_{1,1} - \delta'^2 z_{1,-1}) \\
&- \frac{1}{4} \chi^2 (1 - \chi^2) \{\phi \delta'^4 z_{0,0} + \theta \delta'^4 z_{1,0}\} + \frac{1}{120} \phi (1 - \phi^2) (4 - \phi^2) \delta^4 z_{0,0} + \frac{1}{120} \theta (1 - \theta^2) (4 - \theta^2) \delta^4 z_{1,0} \dots (\text{xxiv}) \text{ bis.}
\end{aligned}$$

We see that there will be 14 coefficients to be computed\*.

If the reader examines the above statements he will see that the Mid-side Formula (xxiv) *bis* probably involves the least labour; there is little to choose, however, between the work involved in (xxii) and (xxiii).

Illustrations of convenient arrangements of the work in using these formulae are given in the succeeding section. They apply in the case of Tables I, II and III, *i.e.* in Regions 5, 6, 7, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 30, 31, 32, 33, 34. They also apply to the application of Table II to Regions 20 and 29 and of Table III to Regions 3 and 4.

(a') When we come to the application of Table V for five-figure accuracy in Regions 2 and 11 experience has shown that any interpolation formula which involves the function value 1.0 for  $p = -1.0$  leads to unsatisfactory results. Hence for  $p$  a high negative value it is desirable to use a forward difference formula. Outside the region  $p = -.90$ , and  $u = 1.5$  to  $u = 2.0$ , the formula

$$\begin{aligned}
z_{\theta, \chi} &= z_{00} + \theta \Delta_u z_{00} + \chi \Delta_p z_{00} - \frac{1}{2} \{\theta (1 - \theta) \Delta_u^2 z_{00} - 2 \chi \theta \Delta_{pu}^2 z_{00} + \chi (1 - \chi) \Delta_p^2 z_{00}\} \\
&\quad + \frac{1}{6} \{\theta (1 - \theta) (2 - \theta) \Delta_u^3 z_{00} - 3 \chi \theta (1 - \theta) \Delta_{up}^3 z_{00} - 3 \theta \chi (1 - \chi) \Delta_{up}^3 z_{00} + \chi (1 - \chi) (2 - \chi) \Delta_p^3 z_{00}\} \text{ (xxv),}
\end{aligned}$$

even if we proceed only to second differences will often suffice, or again only one set of third differences may be sensible.

But where  $u$  is small and  $p$  is negative and greater than  $-.90$ , Table V no longer suffices to give even five-figure accuracy. We have two divergent series of differences to deal with, the one due to  $u$  and the other to  $p$ . Table III using  $\log I' (u, p)$  gets over the  $u$ -difference difficulties and is appropriate to the Regions 3, 4 and 5, where  $u$  is small and  $p$  not too close to  $-1.0$ . Central difference mid-panel formulae suited to 'final' or boundary regions are provided in *Tracts for Computers*, No. III. p. 49, and may occasionally be used with advantage in Regions 6 and 7 of the *Key*.

Table III becomes less accurate as  $p$  becomes increasingly negative, and its accuracy has fallen to five figures in Region 3. In Region 2, except for the tabulated values, neither Table III nor Table V suffices for five-figure accuracy. Method *A* gives any required accuracy, however, at not too great an expenditure of labour. What is needed in this Region 2 is to get rid of both series of divergent differences. The  $\log I' (u, p)$  function gets rid of the  $u$  difficulties, but to get rid of the  $p$  difficulties we are compelled to alter our variate  $u$ .

$$\text{If we take } \xi = u \sqrt{1 + p} \text{ and write } \xi^{p+1} \times I'' (\xi, p) = \int_0^\xi \frac{e^{-x} x^p dx}{\Gamma(p+1)}$$

we have in  $\log I'' (\xi, p)$  a function of which the differences with regard to both  $p$  and  $\xi$  are non-divergent, and a table of  $\log I'' (\xi, p)$  will enable us to determine  $\log I (\xi, p)$  by adding on  $(p+1) \log \xi$ .

The objection to this process is that we could not have based all our tables on tabulation by  $\xi$  instead of  $u$ ; the length of the  $\xi$  columns would have been interminable. We should have been compelled to change at some point from  $\xi$  to  $u$ , and the variates of entry would not have been uniform. To enable a reader who does not wish to adopt Method *A* for Region 2 we provide on p. xiv a seven-figure table of  $\log I'' (\xi, p)$  for the range of  $p = -1.00$  to  $-.90$  and  $\xi = 0$  to  $.30$  by units of  $.01$  for  $p$  and  $\xi$ .

In using the main tables the reader will find occasional areas where the central differences of the function entries are omitted. This may arise from three sources: (a) the omitted differences are insensible to seven-figure accuracy, *e.g.* there is no point whatever in tabling a fourth difference under the value 4 in the last place of figures. (b) The omitted differences cannot be computed owing to the nature of the function itself, *e.g.*  $u = 0$ , or  $= 0.1$  or  $0.2$  in Table I. In such final regions we must use a forward difference formula or introduce an auxiliary function (Table III). (c) The differences may be so large, and so unreliable, *i.e.* diverge at a greater rate than the coefficients converge, that it is safer to omit them, *e.g.* the  $p$  differences of function values near  $p = -1.0$ . For such areas, *e.g.* Regions 1, 10, 19, 28, other methods of computing than interpolating from a table must be dealt with and will be considered below. The user of the tables can hardly fail in the absence of the differences to recognise whether this arises from sources (a), (b) or (c). Should he fail to do so, he will realise what source it arises from when he attempts to determine for himself the missing differences from the table entries.

\* Help in the computation of the bi-variate coefficients may be obtained by the use of A. J. Thompson's 'Table of the Coefficients of Everett's Central Difference Formula,' *Tracts for Computers*, No. v. Cambridge University Press.

Log  $I''(\xi, p)$ . Adjusted Table V for  $p = -1.0$  to  $-.90$ ,  $\xi = .00$  to  $.30$ .

$\xi$	$p = -1.00$	$p = -.99$	$p = -.98$	$p = -.97$	$p = -.96$	$p = -.95$	$p = -.94$	$p = -.93$	$p = -.92$	$p = -.91$	$p = -.90$	$\xi$
.00	.0000000	.0024713	.0048721	.0072036	.0094666	.0116621	.0137911	.0158545	.0178531	.0197877	.0216593	.00
.01	.0000000	.0024284	.0047872	.0070774	.0093000	.0114558	.0135459	.0155710	.0175321	.0194299	.0212654	.01
.02	.0000000	.0023857	.0047026	.0069518	.0091341	.0112504	.0133017	.0152888	.0172125	.0190737	.0208731	.02
.03	.0000000	.0023432	.0046179	.0068268	.0089690	.0110460	.0130586	.0150079	.0168944	.0187190	.0204826	.03
.04	.0000000	.0023009	.0045348	.0067024	.0088047	.0108425	.0128165	.0147282	.0165776	.0183659	.0200937	.04
.05	.0000000	.0022588	.0044515	.0065786	.0086412	.0106400	.0125756	.0144498	.0162623	.0180143	.0197065	.05
.06	.0000000	.0022170	.0043685	.0064554	.0084784	.0104384	.0123361	.0141726	.0159484	.0176642	.0193209	.06
.07	.0000000	.0021754	.0042860	.0063327	.0083164	.0102377	.0120976	.0138967	.0156358	.0173156	.0189370	.07
.08	.0000000	.0021339	.0042039	.0062107	.0081551	.0100379	.0118600	.0136220	.0153246	.0169686	.0185547	.08
.09	.0000000	.0020926	.0041222	.0060892	.0079946	.0098391	.0116235	.0133485	.0150148	.0166231	.0181741	.09
.10	.0000000	.0020516	.0040408	.0059683	.0078348	.0096412	.0113881	.0130762	.0147064	.0162791	.0177952	.10
.11	.0000000	.0020108	.0039598	.0058479	.0076758	.0094442	.0111537	.0128052	.0143993	.0159366	.0174179	.11
.12	.0000000	.0019701	.0038793	.0057281	.0075175	.0092480	.0109204	.0125354	.0140935	.0155956	.0170421	.12
.13	.0000000	.0019296	.0037991	.0056089	.0073599	.0090527	.0106881	.0122668	.0137891	.0152560	.0166679	.13
.14	.0000000	.0018894	.0037193	.0054903	.0072031	.0088584	.0104569	.0119993	.0134861	.0149179	.0162954	.14
.15	.0000000	.0018494	.0036398	.0053722	.0070470	.0086650	.0102267	.0117330	.0131844	.0145813	.0159245	.15
.16	.0000000	.0018095	.0035608	.0052546	.0068917	.0084724	.0099976	.0114679	.0128839	.0142461	.0155551	.16
.17	.0000000	.0017698	.0034821	.0051376	.0067370	.0082807	.0097695	.0112040	.0125847	.0139123	.0151873	.17
.18	.0000000	.0017303	.0034038	.0050211	.0065830	.0080899	.0095424	.0109413	.0122869	.0135800	.0148210	.18
.19	.0000000	.0016909	.0033259	.0049052	.0064297	.0078999	.0093163	.0106797	.0119904	.0132491	.0144563	.19
.20	.0000000	.0016517	.0032483	.0047899	.0062771	.0077108	.0090912	.0104192	.0116952	.0129196	.0140932	.20
.21	.0000000	.0016128	.0031711	.0046750	.0061252	.0075225	.0088672	.0101599	.0114013	.0125916	.0137316	.21
.22	.0000000	.0015742	.0030942	.0045607	.0059741	.0073351	.0086442	.0099018	.0111086	.0122650	.0133715	.22
.23	.0000000	.0015357	.0030177	.0044469	.0058237	.0071485	.0084222	.0096448	.0108172	.0119398	.0130129	.23
.24	.0000000	.0014973	.0029416	.0043346	.0056739	.0069628	.0082010	.0093889	.0105270	.0116159	.0126559	.24
.25	.0000000	.0014591	.0028658	.0042209	.0055248	.0067779	.0079808	.0091341	.0102381	.0112934	.0123004	.25
.26	.0000000	.0014210	.0027904	.0041087	.0053763	.0065938	.0077617	.0088804	.0099505	.0109723	.0119464	.26
.27	.0000000	.0013832	.0027153	.0039970	.0052285	.0064106	.0075436	.0086279	.0096641	.0106526	.0115938	.27
.28	.0000000	.0013455	.0026406	.0038858	.0050814	.0062282	.0073264	.0083765	.0093789	.0103342	.0112427	.28
.29	.0000000	.0013080	.0025662	.0037751	.0049350	.0060466	.0071102	.0081261	.0090950	.0100171	.0108931	.29
.30	.0000000	.0012707	.0024922	.0036649	.0047893	.0058658	.0068949	.0078768	.0088123	.0097013	.0105449	.30

Higher differences than those tabled in Tables I to IV can be found from the consideration that

$$\delta'^{2s+2}z_{0,0} = \delta'^{2s}z_{0,-1} + \delta'^{2s}z_{0,1} - 2\delta'^{2s}z_{0,0}, \text{ and } \delta^{2s+2}z_{0,0} = \delta^{2s}z_{-1,0} + \delta^{2s}z_{1,0} - 2\delta^{2s}z_{0,0},$$

and the full formulae up to 8th differences are given in the *Tract for Computers*, No. III. They can only be of service, however, in very limited regions of the present table.

If the reader expresses astonishment at the comparative labour of using these tables now that they are completed, we tender our sympathy, but are convinced that his astonishment will vanish as he grows more accustomed to the use of bi-variate tables. He has possibly occasionally seen there was some difficulty in interpolating into tables of  $\log \sin x$  or of *natural cot x* when  $x$  was small. Let him consider a bi-variate function like  $\log \sin xy$  or  $\cot xy$  when both  $x$  and  $y$  are small, and he will have a function which like ours is troublesome along two boundaries of the table, but one for which it is easier to find remedies.

As a matter of fact, supposing the use of a machine, which every modern computer has at his command, no interpolation suggested ought to take more than an hour's work and many much less. If the user of these tables groans under that hour, let him compute *de novo* a function value, say  $I(6.86877, 47.1813)$ —including of course  $\Gamma(48.1813)$ —to seven-figure accuracy, and when he has completed the task, we believe his feelings towards those who have provided him with these tables will be very sensibly modified.

( $\beta$ ) *Reduction Formulae for the Incomplete  $\Gamma$ -function.*

The two chief reduction formulae are obtained by respectively lowering and raising  $p$ .

$$\begin{aligned} \text{Let } \xi &= u_1 \sqrt{p+1} = u_2 \sqrt{p+2} = \dots = u_n \sqrt{p+n} \\ &= u_0 \sqrt{p} = u_{-1} \sqrt{p-1} = \dots = u_{-n} \sqrt{p-n}. \end{aligned}$$

Then by integrating by parts either starting with  $x^p$  or with  $e^{-x}$  we find

$$I(u_1, p) = \frac{e^{-\xi} \xi^{p+1}}{\Gamma(p+2)} + I(u_2, p+1) \dots \dots \dots (\text{xxvi}), \quad I(u_1, p) = I(u_0, p-1) - \frac{e^{-\xi} \xi^p}{\Gamma(p+1)} \dots \dots \dots (\text{xxvii}).$$

Hence by repeated application we find

$$I(u_1, p) = \frac{e^{-\xi} \xi^{p+1}}{\Gamma(p+2)} \left\{ 1 + \frac{\xi}{(p+2)} + \frac{\xi^2}{(p+2)(p+3)} + \dots + \frac{\xi^{n-1}}{(p+2)(p+3) \dots (p+n)} \right\} + I(u_{n+1}, p+n) \dots \dots \dots (\text{xxviii}),$$

where  $u_{n+1} = u_1 \sqrt{(p+1)/(p+n+1)}$

and

$$I(u_1, p) = I(u_{-n}, p-n-1) - \frac{e^{-\xi} \xi^p}{\Gamma(p+1)} \left\{ 1 + \frac{p}{\xi} + \frac{p(p-1)}{\xi^2} + \dots + \frac{p(p-1) \dots (p-n+1)}{\xi^n} \right\} \dots (\text{xxix}),$$

where  $u_{-n} = u_1 \sqrt{p/(p-n)}$ .

Clearly if  $\xi$  be small as compared to  $p$  the series in curled brackets in (xxviii) will converge rapidly.  $u_{n+1}$  will decrease in value and  $I(u_{n+1}, p+n)$  become negligible. Since  $u_1$  is equal to  $\xi/\sqrt{p+1}$ , we must have  $u$  small as compared with  $\sqrt{p}$ .

Similarly when  $\xi$  is large compared with  $p$  or  $u$  large compared with  $\sqrt{p}$ , the expression (xxix) is available. But without trusting to rapid convergency of the series we may use either (xxviii) or (xxix) to transfer an Incomplete  $\Gamma$ -function either lying with regard to  $p$  outside the tables into the tables, or if inside the tables, in a region where owing to the value of  $p$  or  $u$  the interpolation is unsatisfactory, into a region where interpolation will give better results.

If  $\xi$  is of the order  $p$ , or  $u$  of the order  $\sqrt{p+1}$ , there, especially when  $p$  is large, neither (xxviii) nor (xxix) can be used to compute effectively  $I(u, p)$  apart from the tables. For example,

to obtain the integral  $\int_0^{45} \frac{x^{48} e^{-x}}{\Gamma(49)} dx$  correct to only five decimal places we require about 30 terms of the series and to evaluate  $\int_{102}^{\infty} \frac{x^{99} e^{-x}}{\Gamma(100)}$  to five-figure accuracy we need 50 terms of the series.

Clearly for integrating up to the neighbourhood of the mean or mode for considerable values of  $p$ , integration by parts is very lengthy, and other methods must be considered.

A third formula, which sometimes may be of value, is obtained by expanding the exponential and integrating. We have, if  $\xi = u\sqrt{p+1}$  as before,

$$I(u, p) = \frac{\xi^{p+1}}{\Gamma(p+2)} \left( 1 - \frac{\xi(p+1)}{1!(p+2)} + \frac{\xi^2(p+1)}{2!(p+3)} - \frac{\xi^3(p+1)}{3!(p+4)} + \dots \right) \dots \dots \dots (\text{xxx}).$$

Less than 20 terms even in such an extreme case as  $u = 6.0$ ,  $p = -0.65$  will give the result correct to more than seven decimals. When  $p$  is  $-0.99$  or still nearer  $-1.0$ , only about 12 terms are required even when  $u$  is as large as 10.

When  $p$  is of the order  $-0.99$  and  $u$  not more than 1.5, then six terms will give no more than seven-figure accuracy. It will be desirable to calculate the terms in the series to about nine-figure accuracy, and the same accuracy in the outside factor  $\xi^{p+1}/\Gamma(p+2)$ . The  $\log \Gamma(p+2)$  is provided by Legendre's Tables of the Complete  $\Gamma$ -function\*.

We term the use of (xxx) *Method A*, and it covers without too great labour the Regions 1, 10 and part of 19 of our *Key*, as well as Regions 2, 3 and 11 where the computer has need of more than five decimal figures.

We now turn to the Regions in the *Key* denoted by 19, 20, 28 and 29. Here (xxviii) will provide what we need. For example in 20, if  $p = -0.75$  and  $u = 6.0$ , then for  $n = 1$  and  $n = 2$  or by the calculation of 1 or 2 terms of the series  $I(6.0, -0.75)$  is reduced to  $I(2.68\dots, .25)$  or  $I(2.0, 1.25)$  both of which fall in the Region 14 and can therefore be found with seven-figure accuracy from Table I.

Again consider  $I(10, -0.99)$  in Region 19 a single or double reduction leads to  $I(.995\dots, .01)$  or  $I(.705, 1.01)$  both in Region 5 of *Key* and therefore discoverable from Table III. We term this process of reduction *Method B*, and it will provide for the remaining Regions (19) and (20) of the negative  $p$  portion of our *Key*.

We shall now consider high values of  $p$  beyond our tabled range. We have indicated that to get five-figure accuracy we may need to calculate 30 to 50 terms. Accordingly it seems best, at least when  $p$  is not greater than 70, to throw back the function into the table by the reduction formula (xxix). For example

\* Or reprinted in *Tracts for Computers*, No. iv. Cambridge University Press.

if we need  $I(6.0, 65.0)$ , we take  $u = 15$ , and reduce it to  $I(6.840\dots, 49.0)$ . This will involve the calculation of 15 terms in the series in (xxix). We term this process of throwing back into the table *Method D*. Sometimes it is convenient when  $u$  is small to use (xxviii). For example  $I(2.0, 63)$  could be reduced by 15 terms of (xxviii) to  $I(1.80\dots, 79)$  which to seven figures is zero. Hence 15 terms would suffice to calculate  $I(2.0, 63)$ . We may call this method *Method D'*. It is, however, only workable for low values of  $u$ .

(γ) *Formulae for Integrals in the Neighbourhood of the Mode.*

In the neighbourhood of  $u = \sqrt{p+1}$ , i.e. in the neighbourhood of the mean or mode when  $p$  is considerable, good results can be obtained by a process which we will term *Method E*. This consists in fitting a quartic curve to  $y = \frac{1}{\Gamma(p+1)} x^p e^{-x}$  in the region of the mean and mode, and integrating the area of this curve from the median to the required point, the area to the median being known to be .5.

Thus we run a quartic curve, horizontal at the mode through points on the curve

$$y = x^p e^{-x} / \Gamma(p+1),$$

namely at the summit of the mode ( $y_2$ ), two units before the mode ( $y_1$ ), at the summit of the mean ( $y_3$ ) and two units beyond the mean ( $y_4$ ). Since the mode is at  $x = p$ , the mean at  $x = p + 1$ , we have

$$\begin{aligned} y_1 &= (p-2)^p e^{-(p-2)} / \Gamma(p+1), & y_2 &= p^p e^{-p} / \Gamma(p+1), \\ y_3 &= (p+1)^p e^{-(p+1)} / \Gamma(p+1), & y_4 &= (p+3)^p e^{-(p+3)} / \Gamma(p+1) \dots\dots\dots(\text{xxxii}). \end{aligned}$$

These four values must first be computed.

The equation to the quartic required *with origin at the mode* is

$$y = y_2 + \frac{9y_1 - 185y_2 + 180y_3 - 4y_4}{180} x^2 - \frac{6y_1 + 10y_2 - 15y_3 - y_4}{90} x^3 + \frac{3y_1 + 25y_2 - 30y_3 + 2y_4}{180} x^4.$$

Let the median be at distance  $d$  from the mode, and the bounding ordinate of the required area at distance  $d'$  from the mode. Then

$$\begin{aligned} \int_0^{p+d'} \frac{x^p e^{-x} dx}{\Gamma(p+1)} &= 0.5 + y_2 (d' - d) + \frac{9y_1 - 185y_2 + 180y_3 - 4y_4}{540} (d'^3 - d^3) \\ &\quad - \frac{6y_1 + 10y_2 - 15y_3 - y_4}{360} (d'^4 - d^4) + \frac{3y_1 + 25y_2 - 30y_3 + 2y_4}{900} (d'^5 - d^5) \dots\dots(\text{xxxiii}). \end{aligned}$$

Here  $d'$  may be either positive or negative and  $d$  is to be determined from equation (xx), or

$$d = .6666,6667 + \frac{.0197,5309}{p+1} + \frac{.0072,1144}{(p+1)^2} + \frac{.0003,8554}{(p+1)^3} \dots\dots\dots(\text{xxxiiii}).$$

It will be found that (xxxiii) gives results correct to practically seven figures between mode and mean, and results of about five-figure accuracy even to about half a unit beyond  $y_1$  and  $y_4^*$ . These results are based on  $p$  being about 50; if  $p$  be about 100, six-figure accuracy may be obtained in a range of 3 taken on either side the mode. This process of evaluating the Incomplete  $\Gamma$ -function for high indices we term as we have noted *Method E*. The great misfortune is that its range is so limited†, it is only valid in the immediate neighbourhood of mode and mean. This *Method E* applies to Regions 35 and 36 of the *Key*.

(δ) *Formulae for Values of the p-argument outside the Limits of the Tables.*

We now come to Regions 18 and 27 of the *Key*. Here the labour of *Method D*, or throwing back into the table becomes increasingly wearisome. For  $p = 100$ , we should have to calculate 50 terms before we could find  $I(u_{-n}, p - n - 1)$  from the table. If  $u$  be small *Method D'* will give good accuracy with far fewer than 50 terms. For  $u$  considerable, but not in the neighbourhood of  $\sqrt{p+1}$ , there appears to be only two possible processes:

(a) To use quadrature formulae—we have tried a number and find that Weddle's gives the best results.

We integrate either 
$$\int_0^\xi \frac{x^p e^{-x} dx}{\Gamma(p+1)} \quad \text{or} \quad \int_\xi^\infty \frac{x^p e^{-x} dx}{\Gamma(p+1)}$$

\* A quintic through the additional summit of the ordinate at the median provided six-figure accuracy throughout; but as it involved the value of  $d$  in the coefficients of the powers of  $x$  it gave far more complicated results.

† As the limit to the curve  $y = y_0 x^p e^{-x}$  as  $p$  increases is a normal curve of errors we might seem justified in expanding in either incomplete normal moment functions or what is practically the same thing tetrachoric functions. Such expansions have been tried and found inadequate, except near the mode, even when 30 terms were taken. This will be dealt with on another occasion.

according as  $\xi$  is  $<$  or  $>$   $p + 1$ , so as not to cross the vertex of the curve\*. The Weddle quadrature with 18 or 24 ordinates will give the correct result to about 6 decimal places. If complete seven-figure accuracy is desirable still more ordinates must be used. In the actual construction of the present tables we were using over 60 ordinates when we came to the quadrature of areas near the mode, and these ordinates were computed to eight figures, and the bases being to one-tenth, we obtained accuracy to seven figures.

(b) To use the reduction formulae (xxviii) or (xxix) according as  $\xi$  is less or greater than  $p$ , and to carry this on until the last term of the series is insensible to the required degree of accuracy. In this case  $I(u_{n+1}, p + n)$  in (xxviii) may be put zero and  $I(u_n, p - n - 1)$  in (xxix) be put unity. The whole process is much simplified if we can reckon *a priori* the number of terms in the series we require to go to.

Now the factor  $e^{-\xi} \xi^{p+1} / \Gamma(p + 2)$  is the product of  $\frac{e^{-\xi} \xi^p}{\Gamma(p + 1)}$  and  $\frac{\xi}{p + 1}$  and both of these terms are less than unity for considerable  $p$ , the latter by hypothesis and the former because  $\Gamma(p + 1)$  is  $> e^{-p} p^p$  and  $\xi$  is  $< p$ . For the latter reason  $e^{-\xi} \xi^p / \Gamma(p + 1)$  the factor in (xxix) is less than unity. Accordingly to work to  $s$  decimal accuracy we need in (xxviii) to make

$$\frac{\xi^{n-1}}{(p + 2)(p + 3) \dots (p + n)} \text{ or } \frac{(p + 1)!}{(p + n)!} \xi^{n-1} < 10^{-s}, \text{ and in (xxix) } \frac{p!}{(p - n)!} \xi^{-n} < 10^{-s}.$$

Expressing these as logarithmic inequalities we need to have

$$\log \{(p + n)!\} - (n - 1) \log \xi > s + \log \{(p + 1)!\} \dots \dots \dots (\text{xxxiv}),$$

or

$$\log \{(p - n)!\} + n \log \xi > s + \log \{p!\} \dots \dots \dots (\text{xxxiv}) \text{ bis.}$$

Suppose  $p = 60, \xi = 50$  and we want accuracy to 7 decimal places, and put for safety  $s = 8$ , then we need

$$\log (p + n)! - n \times 1.698,9700 > 90.006,5347.$$

If  $n = 50$ , the left-hand side is 93.252..., if  $n = 40$ , it is 90.021..., if  $n = 41$ , it is 90.316....

Hence 41 terms will provide at least seven-figure accuracy in using the series in (xxviii) to compute  $I(50/\sqrt{61}, 60)$ . The series is then arranged as

$$1 + \frac{\xi}{p + 2} \left\{ 1 + \frac{\xi}{p + 3} \left\{ 1 + \frac{\xi}{p + 4} \left\{ \dots \right\} 1 + \frac{\xi}{p + n - 1} \right\} 1 + \frac{\xi}{p + n} \right\}^\dagger \dots \dots \dots (\text{xxxv}).$$

The operation is now continuous.  $1 + \xi/(p + n)$  is put on the machine, it is multiplied by  $\xi/(p + n - 1)$ , unity is added to the result and it is multiplied by  $\xi/(p + n - 2)$ , unity is again added and the result multiplied by  $\xi/(p + n - 3)$  and so on till we come to  $\xi/(p + 2)$  and add our last unity.

The process is really a very rapid one, but there is no security except the excellence of the computer that a slip has not been made in the long series of operations. A trained computer will, however, multiply by  $\xi$ , divide by  $p + n - s$  and add the unit in continuous sequence transferring from slide to multiplier setting without ever writing anything down on paper. The less-trained, if they adopt this method, are advised to write down their successive factors and the result of each operation so that the stages may be checked by differencing.

For a further illustration consider  $p = 99, \xi = 110$ , and  $s = 8$ , so that we seek  $I(11, 99)$ . We find

$$\log (p - n)! + n \times 2.041,3927 = 163.970,0037.$$

$$n = 40, \text{ the left-hand side} = 161.797\dots,$$

$$n = 46, \quad \text{,,} \quad \text{,,} \quad = 163.534\dots,$$

$$n = 47, \quad \text{,,} \quad \text{,,} \quad = 163.852\dots,$$

$$n = 48, \quad \text{,,} \quad \text{,,} \quad = 164.177\dots$$

\* If the latter formula be used the last ordinate in the infinite tail should be taken to be zero to at least eight figures.

† This formula is of such service for negative  $p$  and small  $u$  that the following table prepared by Miss Ethel M. Elderton will be of real value to the computer. It gives the number of terms  $n$  required for an accuracy in (xxxv) of seven figures.

Values of  $p$

$u$	-·99	-·95	-·90	-·85	-·80	-·75	-·70	-·65	-·60	-·55	-·50	-·45	-·40	-·35	-·30	-·25	-·20	-·15	-·10	-·05	·00
0·1	4	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
0·5	5	6	6	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9
1·0	6	7	7	8	9	9	9	10	10	10	10	10	11	11	11	11	11	11	11	11	11
2·0	7	9	10	11	11	12	12	12	13	13	13	14	14	15	15	15	15	15	15	16	16

Unity is counted as the first or rather last term working from the right.

Accordingly 48 terms of (xxix) will be needed to be certain of seven-figure accuracy. The continuous product may be written

$$1 + \frac{p}{\xi} \left\{ 1 + \frac{p-1}{\xi} \left\{ 1 + \frac{p-2}{\xi} \left\{ \dots \left\{ 1 + \frac{p-(n-2)}{\xi} \left\{ 1 + \frac{p-(n-1)}{\xi} \right\} \dots \dots \dots \right\} \right\} \right\} \dots \dots \dots \text{(xxxvi)},$$

and we start with  $\{p - (n - 1)\}/\xi$  or, in the above case,  $\frac{52}{110}$  on the machine.

In determining  $n$  from (xxxiv) or (xxxiv) *bis* we require a table of the logarithms of the factorials. This is provided to seven figures in the *Tables for Statisticians\** and is ample for the present purpose.

It is frequently needful, however, to calculate  $\log \Gamma(p + 1)$  to more than seven places of decimals. When  $p$  is considerable this is most easily done by interpolation into a table of the logarithms of factorials to, say, 10 decimal places. We do not know of the existence of such a table and have accordingly had to use Degen's to 18 figures, cutting down to the required number of figures†. Such a table provided with central differences would be far more rapid than using computation by Stirling's Theorem of  $\Gamma(p + 1)$  to a large number of figures.

(ε) *Quadrature Formulae outside the Limits of the Tables.*

While the facile computer may use the 40 to 50 series expansion in Regions 18 and 27 the less fully equipped may prefer to use quadratures. In this case if  $\xi$  be  $< p$ , it will be divided into 18 or 24 equal parts and the ordinates at these calculated, say, by 10-figure logarithms. Let them be in the first case  $y_0 (= 0), y_1, y_2 \dots y_{18}$ . Then the required area is

$$\frac{\xi}{60} \{ (y_0 + y_2 + y_4 + y_8 + y_{10} + y_{14} + y_{16} + y_{18}) + 2(y_6 + y_{12}) + 5(y_1 + y_5 + y_7 + y_{11} + y_{13} + y_{17}) + 6(y_3 + y_9 + y_{15}) \} \dots \dots \dots \text{(xxxvii)}.$$

If 24 ordinates be taken the area is

$$\frac{\xi}{80} \{ (y_0 + y_2 + y_4 + y_8 + y_{10} + y_{14} + y_{16} + y_{20} + y_{22} + y_{24}) + 2(y_6 + y_{12} + y_{18}) + 5(y_1 + y_5 + y_7 + y_{11} + y_{13} + y_{17} + y_{19} + y_{23}) + 6(y_3 + y_9 + y_{15} + y_{21}) \} \dots \dots \dots \text{(xxxviii)}.$$

The computed  $y$ 's may be checked by differencing.

The main labour lies in computing  $\log y_s = p \log (sh) - sh \log e - \log \Gamma(p + 1)$ , where  $h = \xi$  divided by 18 or 24 as the case may be.

This may be written  $\log y_s = p \log h - \log \Gamma(p + 1) + p \log s - sh \log e$ , which can be computed very rapidly as  $s$  runs by integers from 1 to 18 or 20. The chief trouble is obtaining the anti-logs.

When  $\xi$  is  $> p$  we shall evaluate 
$$\int_{\xi}^{\infty} \frac{x^p e^{-x} dx}{\Gamma(p + 1)} = \int_{\xi}^{\xi_0} \frac{x^p e^{-x} dx}{\Gamma(p + 1)},$$

where  $\xi_0$  is so chosen that the ordinate is zero to 8 or even 9 figures. It will be advisable to take at least 24 ordinates, and the area  $\int_0^{\xi} \frac{x^p e^{-x} dx}{\Gamma(p + 1)}$  required will be

$$1 - \frac{\xi_0 - \xi}{80} \{ (y_0 + y_2 + y_4 + y_8 + y_{10} + y_{14} + y_{16} + y_{20} + y_{22} + y_{24}) + 2(y_6 + y_{12} + y_{18}) + 5(y_1 + y_5 + y_7 + y_{11} + y_{13} + y_{17} + y_{19} + y_{23}) + 6(y_3 + y_9 + y_{15} + y_{21}) \} \dots \dots \dots \text{(xxxix)}.$$

Weddle's rule with 24 ordinates may be expected to give the area correct to 6 decimal places, if the  $y$ 's have been calculated to eight or nine-figure accuracy‡.

(η) *Expansion in Incomplete Normal Moment Functions, Method E'.*

Another method of some interest which may be used to obtain the areas in the immediate neighbourhood of the mode or maximum arises from the consideration that when  $p$  becomes very large the curve  $y = y_0 x^p e^{-x}$  passes over into the normal curve  $y = y_0' e^{-\frac{1}{2}x^2/\sigma^2}$ .

Transferring to the mode  $x = p$ , we have

$$\begin{aligned} \frac{(p+x)^p e^{-(p+x)}}{\Gamma(p+1)} &= \frac{p^p e^{-p}}{\Gamma(p+1)} e^{-x+p \log \left(1 + \frac{x}{p}\right)} = \frac{p^p e^{-p}}{\Gamma(p+1)} e^{-\frac{x^2}{2p} + \frac{x^3}{3p^2} - \frac{x^4}{4p^3} + \frac{x^5}{5p^4} - \dots} \\ &= \frac{p^p e^{-p}}{\Gamma(p+1)} e^{-\frac{x^2}{2p}} \left\{ 1 + \frac{x^3}{3p^2} - \frac{x^4}{4p^3} + \dots \right\}. \end{aligned}$$

\* Table XLIX, pp. 98-101.

† *Tabularium ad facilitorem et breviorum probabilis computationem utilium Enneas. Havniae, 1824.* This work is now very scarce. A much modified version of it will shortly be issued in the *Tracts for Computers*, Cambridge University Press.

‡ Using Vega's 10-figure logarithms. If 8-figure logarithms be used the result is a little less certain.

Write  $x' = x/\sqrt{p}$ , and  $m_n(x') = \frac{\mu_n(x')}{(n-1)(n-3)\dots 1 \text{ or } 2}$  according as  $n$  is even or odd, where

$$\mu_n(x') = \frac{1}{\sqrt{2\pi}} \int_0^x x'^n e^{-\frac{1}{2}x'^2} dx'$$

Then 
$$\int_0^x \frac{(p+x)^p e^{-(x+p)}}{\Gamma(p+1)} dx = \frac{\sqrt{2\pi p} e^{-p}}{\Gamma(p+1)} \left\{ \mu_0(x') + \frac{1}{\sqrt{p}} \frac{2}{3} m_3(x') + \frac{1}{(\sqrt{p})^2} \left\{ \frac{5}{6} m_6(x') - \frac{3}{4} m_4(x') \right\} + \frac{1}{(\sqrt{p})^3} \left\{ \frac{6}{27} m_9(x') - 4 m_7(x') + \frac{5}{3} m_5(x') \right\} + \text{etc.} \right\} \dots\dots(xl).$$

This is the expansion in normal moment functions to which reference has more than once been made. The series converges very slowly by the factor  $1/(\sqrt{p})$  and, unless  $p$  be very considerably above 100 and  $x'$  be small, does not give very profitable results, even if we include the  $1/(\sqrt{p})^4$  term (not given above as it involves the not tabulated  $m_{12}$ ). The values of the  $m$ 's are tabulated in Table IX of the book of *Tables for Statisticians* up to  $m_{10}$ . To the degree of approximation involved we may write by Stirling's Theorem

$$\frac{\sqrt{2\pi p} e^{-p}}{\Gamma(p+1)} = 1 - \frac{1}{12p} + \frac{1}{288p^2} \text{ nearly } \dots\dots\dots(xli),$$

and formula (xl) for  $p$  of order 50 will give results to about the fourth place of figures within a range of about the standard deviation, say  $\sqrt{p}$  on either side the mode. For a range of about three units either side the mode, *i.e.*  $p \pm 3$ , the formula (xxxii) gives correct results to five or six figures. The method accordingly is somewhat less accurate than the 'quartic' approximation described on p. xvi. A variety of other forms of expansion gave no better results and were more complicated in character. Similar expansions for the Incomplete Beta-function have been discussed by H. E. Soper\*.

(IV) ILLUSTRATIONS OF THE USE OF THE TABLES.

(a) *As Probability Integral of a Skew Curve.* The frequencies below give the distribution of barometer heights for 13 years, or 4748 days, at Cambridge:

28.25—28.35	1	28.95—29.05	23	29.65—29.75	388	30.35—30.45	246
28.35—28.45	0	29.05—29.15	24	29.75—29.85	479.5	30.45—30.55	150
28.45—28.55	0	29.15—29.25	63.5	29.85—29.95	537.5	30.55—30.65	85.5
28.55—28.65	1	29.25—29.35	81	29.95—30.05	586	30.65—30.75	35
28.65—28.75	2	29.35—29.45	127	30.05—30.15	550	30.75—30.85	7.5
28.75—28.85	6.5	29.45—29.55	213	30.15—30.25	488	30.85—30.95	2.5
28.85—28.95	10.5	29.55—29.65	289	30.25—30.35	350.5	30.95—31.05	0.5

The following curve was fitted to them with origin at the mean (29.9524'')

$$y = 42.839 \left( 1 + \frac{x}{1.9613} \right)^{32.5973} e^{-17.1303x},$$

the axis of  $x$  being measured *positive* towards low barometer. It is required to find the theoretical frequencies corresponding to the above observations.

The first process is to interpolate a probability integral from the tables for  $p = 32.5973$ . It is adequate to do this for intervals 0.2 of  $u$ . To find the range of  $u$  we first take  $x'$  as given by

$$x' = 17.1303 (1.9613 + x).$$

The maximum height of the barometer is 29.9524'' + 1.9613 = 31.9137''. For any height  $b$  of the barometer therefore

$$x' = 17.1303 (31.9137 - b),$$

and clubbing terminal observations we may take  $b$  from 28.75 to 30.85. Accordingly since

$$u = x'/\sqrt{p+1} = x'/\sqrt{33.5973},$$

the required range of  $u$  will be from

$$u_0 = 17.1303 \times 3.1637/\sqrt{33.5973}, \text{ or } \frac{9.3499}{9.4442}, \text{ to } u_n = 17.1303 \times 1.0637/\sqrt{33.5973}, \text{ or } \frac{3.1436}{3.1753}.$$

Thus allowing for differencing we may take out values of  $u$  from 2.8 to 9.8.

After interpolation we have the following values of  $I(u, 32.5973)$ :

\* *Tracts for Computers*, No. VII. Cambridge University Press.

ILLUSTRATIONS OF THE USE OF THE TABLES

<i>u</i>	<i>I</i> ( <i>u</i> , 32-5973)	<i>u</i>	<i>I</i> ( <i>u</i> , 32-5973)	<i>u</i>	<i>I</i> ( <i>u</i> , 32-5973)	<i>u</i>	<i>I</i> ( <i>u</i> , 32-5973)
2.8	.000,1070	4.6	.109,0462	6.4	.739,2317	8.2	.985,7342
3.0	.000,3619	4.8	.158,2932	6.6	.795,6526	8.4	.990,5566
3.2	.001,0572	5.0	.218,3479	6.8	.843,2106	8.6	.993,8463
3.4	.002,7172	5.2	.287,7283	7.0	.882,1513	8.8	.996,0503
3.6	.006,2395	5.4	.363,9777	7.2	.913,1753	9.0	.997,5017
3.8	.012,9677	5.6	.443,9874	7.4	.937,2611	9.2	.998,4418
4.0	.024,6647	5.8	.524,4106	7.6	.955,5085	9.4	.999,0413
4.2	.043,3440	6.0	.602,0769	7.8	.969,0161	9.6	.999,4178
4.4	.070,9652	6.2	.674,3283	8.0	.978,7975	9.8	.999,6509

From this table we have to interpolate for the barometric heights running by tenth inches, remembering that a low *u* corresponds to a high barometer. The frequency *above* the given barometric height corresponding to *u* will be simply 4748 × *I* (*u*, 32-5973).

Above	<i>u</i>	<i>I</i> ( <i>u</i> , 32-5973)	Above	<i>u</i>	<i>I</i> ( <i>u</i> , 32-5973)	Above	<i>u</i>	<i>I</i> ( <i>u</i> , 32-5973)
30.85	3.175231426	.00079	30.05	5.563555077	.40690	29.35	7.653175767	.95365
30.75	3.473834372	.00322	29.95	5.862058925	.52579	29.25	7.951678722	.97293
30.65	3.772437347	.01032	29.85	6.160560970	.63866	29.15	8.250181678	.98478
30.55	4.070940302	.02699	29.75	6.459063745	.73757	29.05	8.548684633	.99174
30.45	4.369443258	.05956	29.65	6.757566701	.81817	28.95	8.847287588	.99567
30.35	4.667946213	.11376	29.55	7.056069656	.87963	28.85	9.145770544	.99780
30.25	4.966449169	.19214	29.45	7.354672512	.92373	28.75	9.444273479	.99892
30.15	5.264952124	.29228						

Differencing these values and multiplying by 4748 we have the table of frequency below.

*Frequency of Barometric Heights at Cambridge.*

Height	Frequency		Height	Frequency		Height	Frequency	
	Observed	Calculated		Observed	Calculated		Observed	Calculated
Below 28.75	4	5.13	29.45—29.55	213	209.39	30.25—30.35	350.5	372.15
28.75—28.85	6.5	5.32	29.55—29.65	289	291.81	30.35—30.45	246	257.34
28.85—28.95	10.5	10.11	29.65—29.75	388	382.69	30.45—30.55	150	154.64
28.95—29.05	23	18.66	29.75—29.85	479.5	469.62	30.55—30.65	85.5	79.15
29.05—29.15	24	33.05	29.85—29.95	537.5	535.91	30.65—30.75	35	33.71
29.15—29.25	63.5	56.26	29.95—30.05	586	564.49	30.75—30.85	7.5	11.54
29.25—29.35	81	91.54	30.05—30.15	550	544.22	Above 30.85	3.0	3.75
29.35—29.45	127	142.06	30.15—30.25	488	475.46	Totals	4748	4748.00

Our purpose now is not to test these results as adequately describing the distribution, but merely to illustrate how the theoretical results may be computed, exactly as in the case of the normal curve.

(b) *Illustration of Method A*, applicable to Regions 1, 2, 3, 10, 11 and 19 of *Key*.

Find *I* (6.0, −.995).

The formula is: 
$$I(u, p) = \frac{\xi^{p+1}}{\Gamma(p+2)} \left( 1 - \frac{\xi(p+1)}{1!(p+2)} + \frac{\xi^2(p+1)}{2!(p+3)} - \frac{\xi^3(p+1)}{3!(p+4)} + \dots \right),$$

where:

$$\xi = 6\sqrt{.005} = 6 \times .0707,1067812 = .4242,6407.$$

Accordingly

$$\begin{aligned} & 1 & + 1.0 \\ \xi & = .4242,64069 & \frac{\xi(p+1)}{1!(p+2)} & - .0021,1077 \\ \xi^2 & = .18 & \frac{\xi^2(p+1)}{2!(p+3)} & + .0002,2444 \\ \xi^3 & = .0763,67532 & \frac{\xi^3(p+1)}{3!(p+4)} & - .0000,2118 \\ \xi^4 & = .0324 & \frac{\xi^4(p+1)}{4!(p+5)} & + .0000,0169 \\ \xi^5 & = .0137,46156 & \frac{\xi^5(p+1)}{5!(p+6)} & - .0000,0011 \\ \xi^6 & = .005832 & \frac{\xi^6(p+1)}{6!(p+7)} & + .0000,0001 \end{aligned}$$

$$\frac{1.0002,2614}{1.0002,2614} - \frac{.0021,3206}{.0021,3206}$$



Thus we have:

$$\text{Series} = .9980,9408$$

$$(p + 1) \log \xi = \bar{1}.9981,38181$$

$$\log \Gamma(p + 2) = \bar{1}.9987,55500 \text{ from Legendre's tables}$$

$$\log \frac{\xi^{p+1}}{\Gamma(p + 2)} = \bar{1}.9993,82681$$

$$\frac{\xi^{p+1}}{\Gamma(p + 2)} = .9985,7958$$

$$I(u, p) = .9985,7958 \times .9980,9408$$

$$= .996,6764$$

correct to the last figure.

This case falls in Region 10 of the *Key*, but the method is the same for regions where Method *A* applies.

(b') *Use of Adjusted Table V.* While considering Method *A* in Region 2 of *Key* we can exhibit the use of the Adjusted Table V for  $\log I''(\xi, p)$ : see p. xiv above. Let us find  $I(.015, -.9845)$ , where  $\xi$  (not  $u$ ) = .015. Here  $\theta = .50, \chi = .55$  and we must use formula (xxv). The differences we need are exhibited in the following scheme:

Function	Value	Product	Value	Coefficient
$z_{00}$	+ .002,4284	+ .002,4284,0	+ 1	1
$\Delta_u z_{00}$	- .000,0427	- .000,0213,5	+ .50	$\theta$
$\Delta_p z_{00}$	+ .002,3588	+ .001,2973,4	+ .55	$\chi$
$\Delta_{up}^2 z_{00}$	- .000,0419	- .000,0115,2	+ .275	$\frac{\theta\chi}{2}$
$\Delta_u^2 z_{00}$	+ .000,0002	- .000,0000,3	- .125	$-\frac{1}{2}\theta(1-\theta)$
$\Delta_p^2 z_{00}$	- .000,0686	+ .000,0084,9	- .123,75	$-\frac{1}{2}\chi(1-\chi)$
$\Delta_{up}^3 z_{00}$	+ .000,0010	+ .000,0000,6	+ .059,6125	$\frac{1}{6}\chi(1-\chi)(2-\chi)$
$\Delta_u^3 z_{00}$	+ .000,0009	- .000,0000,6	- .061,875	$-\frac{1}{6}\theta\chi(1-\chi)$
$\Delta_p^3 z_{00}$	- .000,0003	+ .000,0000,2	- .068,75	$-\frac{1}{6}\chi\theta(1-\theta)$
$\Delta_{up}^4 z_{00}$	+ .000,0000	+ .000,0000,0	+ .062,5	$\frac{1}{24}\theta(1-\theta)(2-\theta)$

Sum of Products = .003,7013,5 =  $\log I''(\xi, p)$ . Add  $(p + 1) \log \xi = -.028,2705,9$ .

Therefore  $\log I(\xi, p) = \bar{1}.975,4307,6$ . Accordingly  $I(\xi, p) = .944,997,7$ .

If we now proceed to use Method *A* we have

Series: 1 = 1. 1.

$$\xi(p + 2) = .0147,7105 \quad .0147,7105$$

$$\xi(p + 3) = .0074,4232 \quad 1,0993$$

$$\xi(p + 4) = .0049,7430 \quad 55$$

$$\xi(p + 5) = .0037,3552 \quad 0$$

$$S_1 = \text{Sum of series} = 1.0148,8153$$

Hence

$$\left. \begin{aligned} \log S_1 &= .0064,1535 \\ -\xi \log e &= -.0065,1442 \\ + (p + 1) \log \xi &= -.0282,7059 \\ -\log \Gamma(1.0155) &= .0038,0039^* \end{aligned} \right\} = -.0245,6927 = \bar{1}.975,4307,3$$

$$\text{or } I(\xi, p) = .944,997,7.$$

The Adjusted Table V therefore gives the correct result to seven figures in the most difficult part of its area. It is accordingly adequate for seven-figure accuracy.

(c) *Illustration of Method B*, applicable to Regions 19 and 20 of *Key*.

Required

$$I(14.177,4454, -.995).$$

Let us take  $n = 2$  to throw forward into the table. The formula is

$$I(u, p) = \frac{\xi^{p+1} e^{-\xi}}{\Gamma(p + 2)} \left( 1 + \frac{\xi}{p + 2} \right) + I(u_3, p + 2) \dots \dots \dots (\text{xlii}),$$

where

$$u_3 = u_1 \sqrt{\frac{p + 1}{p + 3}} = .707,9878.$$

We have therefore to find  $I(.707,9878, 1.005)$  which falls in Table III (Region 4 of the *Key*). We have accordingly to find first

$$I'(.707,9878, 1.005).$$

\* Either second differences, or first central differences must be used on Legendre's table for eight-figure interpolation accuracy.

We are close up to the entry  $u = .7$ ,  $p = 1.0$ , and thus a mid-point central difference formula is most appropriate, *i.e.* *Casus I* (xxii). We have  $\theta = -.079878$ ,  $\chi = -.05$ . The signs of these are clear at once if we write down all we need out of Table III, *i.e.*

	$z_{1,1}$	$z_{0,1}$	$z_{-1,1}$
	1.7765,5086	1.7405,9445	1.7051,6351
	+ 52024 - 43126	+ 52547 - 40076	+ 53009 - 37163
		- 61 + 78	
$p$	$z_{1,0}$	$z_{0,0}$	$z_{-1,0}$
	1.7633,1923	1.7256,8467	1.6885,8599
	+ 52976 - 42732	+ 53587 - 39779	+ 54138 - 36952
	- 57 + 56	- 60 + 58	- 64 + 57
	$z_{1,-1}$	$z_{0,-1}$	$z_{-1,-1}$
	1.7496,6027	1.7103,7710	1.6716,3895
	+ 53804 - 42282	+ 54502 - 39425	+ 55139 - 36684
		- 60 + 42	
		$\rightarrow u$	

for clearly  $z_{0,1} - z_{0,-1}$  and  $z_{1,0} - z_{-1,0}$  are positive, but the function is decreasing with both  $u$  and  $p$  increasing. Hence both  $\theta$  and  $\chi$  are negative\*. We can now arrange the following scheme of work:

Function	Value	Product	Value	Coefficient
$z_{0,0}$	+ 1.7256,8467	+ 1.7256,8467	+ 1	+ 1
$z_{0,1} - z_{0,-1}$	+ .0302,1735	- .0007,5543	- .0250,0000	+ $\frac{1}{2}\chi$
$z_{1,0} - z_{-1,0}$	+ .0747,3324	- .0029,8477	- .0399,3900	+ $\frac{1}{2}\theta$
$z_{1,1} - z_{1,-1} - z_{-1,1} + z_{-1,-1}$	- .0066,3397	- .0000,0662	+ .0009,9847,5	+ $\frac{1}{4}\theta\chi$
$\delta^2 z_{0,0}$	- .0003,9779	- .0000,0050	+ .0012,4601	+ $\frac{1}{2}\chi^2(1 - \frac{1}{2}\theta^2)$
$\delta^2 z_{0,0}$	+ .0005,3587	+ .0000,0171	+ .0031,8626	+ $\frac{1}{2}\theta^2(1 - \frac{1}{2}\chi^2)$
$\delta^2 z_{1,0} + \delta^2 z_{-1,0} + \delta^2 z_{0,1} + \delta^2 z_{0,-1}$	+ .0002,7365	+ .0000,0000	+ .0000,0199	+ $\frac{1}{4}\theta^2\chi^2$
$\delta^2 z_{0,1} - \delta^2 z_{0,-1}$	- .0000,1955	+ .0000,0000	- .0000,7976	+ $\frac{1}{4}\theta^2\chi$
$\delta^2 z_{1,0} - \delta^2 z_{-1,0}$	- .0000,5780	+ .0000,0000	- .0000,4992	+ $\frac{1}{4}\chi^2\theta$
$\delta^2 z_{1,0} - \delta^2 z_{-1,0}$	- .0000,1162	- .0000,0008	+ .0066,1403	- $\frac{1}{2}\theta(1 - \theta^2)$
$\delta^2 z_{0,1} - \delta^2 z_{0,-1}$	- .0000,0651	- .0000,0003	+ .0041,5625	- $\frac{1}{2}\chi(1 - \chi^2)$
$\delta^2 z_{1,1} - \delta^2 z_{1,-1} - \delta^2 z_{-1,1} + \delta^2 z_{-1,-1}$	- .0000,0350	+ .0000,0000	- .0001,6535	- $\frac{1}{4}\theta\chi(1 - \theta^2)$
$\delta^2 z_{1,1} - \delta^2 z_{1,-1} - \delta^2 z_{-1,1} + \delta^2 z_{-1,-1}$	- .0000,0365	+ .0000,0000	- .0001,6600	- $\frac{1}{4}\theta\chi(1 - \chi^2)$
$\delta^4 z_{0,0}$	- .0000,0060	+ .0000,0000	- .0002,6416	- $\frac{1}{24}\theta^2(1 - \theta^2)$
$\delta^4 z_{0,0}$	+ .0000,0058	- .0000,0000	- .0001,0391	- $\frac{1}{24}\chi^2(1 - \chi^2)$

Summing Product column we have  $\log I' (.707,9878, 1.005) = 1.7219,3895$ .

We must add to this  $(p + 3) \log u_3 = 2.005 \log .707,9878 = 1.6993,0167$ .

This gives  $\log I (.707,9878, 1.005) = 1.4212,4062$ . Hence  $I (.707,9878, 1.005) = .2637,7924$ . We have to add to this

$$\frac{e^{-\xi} \xi^{p+1}}{\Gamma(p+2)} \left(1 + \frac{\xi}{p+2}\right).$$

Here  $\xi = 14.177,4454 \sqrt{.005} = 1.0024,9678$ , or  $1 + \xi/(p+2) = 1.9975,09234$ ,

$$\left. \begin{aligned} \log e^{-\xi} &= -.4353,7882 \\ (p+1) \log \xi &= -.0000,0541 \\ \Gamma(p+2) &= -.0012,4450\dagger \end{aligned} \right\} \text{or the logarithmic of the factor} = 1.5658,7109$$

of which the anti-log is .3680,1972.

Accordingly as  $1.9975,09234 \times .3680,1972 = .7351,2278$ ,

$$I(14.1774454, -.995) = \left\{ \begin{aligned} &.2637,7924 \\ &+ .7351,2278 \end{aligned} \right\} = .998,9020$$

which is out a unit in the last figure. This is by no means the easiest way to obtain the above value of  $I(u, p)$ , but it has been taken to illustrate the use of *Casus I* as well as Method B.

\* It is equally easy to write down the scheme of  $z$ 's with the first subscript negative on the left and positive on the right, or with the second subscript negative at the top and positive at the bottom, or with both these interchanges; the physics of the problem will indicate at once the sign to give to  $\theta$  and  $\chi$ . The reader can, if he chooses, take  $\theta$  negative when negative first subscripts are on the right, and  $\chi$  negative when negative second subscripts are at the bottom, but we prefer being guided by the sign of the fundamental terms.

† Taken from Legendre's Tables, *Tracts for Computers*, No. 1v.

We can confirm the result by throwing only one stage into the table, i.e. put

$$I(u, p) = \frac{\xi^{p+1} e^{-\xi}}{\Gamma(p+2)} + I(u_2, p+1) \dots\dots\dots(\text{xliii}).$$

Here  $u_2 = 14.1774454 \sqrt{.005/1.005} = 1$ ; thus  $I(u_2, p+1) = I(1.0, .005)$  and  $u^{p+1} = 1$ . Accordingly  $\log I'(1.0, .005) = \log I(1.0, .005)$ , and to find the former we have only to interpolate into Table III by the mid-point central difference formula\*

$$z_\theta = z_0 + \frac{1}{2}\theta(z_1 - z_{-1}) + \frac{1}{2}\theta^2\delta^2z_0 - \frac{1}{12}\theta(1-\theta^2)(\delta^2z_1 - \delta^2z_{-1}) - \frac{1}{24}\theta^2(1-\theta^2)\delta^4z_0 + \frac{1}{240}\theta(1-\theta^2)(4-\theta^2)(\delta^4z_1 - \delta^4z_{-1}) \dots\dots\dots(\text{xliv}).$$

Here  $\theta = .05$  and we have:

Function	Value	Product	Value	Coefficient
$z_0$	+ I.8007,9992	+ I.8007,9992	+ 1	1
$z_1 - z_{-1}$	- .0340,5871	- .0008,5147	+ .0250,0000	$\frac{1}{2}\theta$
$\delta^2z_0$	- .0002,4028	- .0000,0030	+ .0012,5000	$\frac{1}{2}\theta^2$
$\delta^2z_1 - \delta^2z_{-1}$	- .0000,6305	+ .0000,0026	- .0041,5625	$-\frac{1}{12}\theta(1-\theta^2)$
$\delta^4z_0$	+ .0000,1153	- .0000,0000	- .0002,0781	$-\frac{1}{24}\theta^2(1-\theta^2)$
$\delta^4z_1 - \delta^4z_{-1}$	+ .0000,0881	+ .0000,0001	+ .0008,3073	$\frac{1}{240}\theta(1-\theta^2)(4-\theta^2)$

The scheme of values and differences being:

$z_{-1}$	$z_0$	$z_1$
I.8177,0913	I.8007,9992	I.7836,5042
- 20298	- 24028	- 26603
+ 1761	+ 1153	+ 780

Sums of products = I.7999,4842, or  $I(1.0, .005) = .6308,8239$ , to which we must add  $e^{-\xi} \xi^{p+1} / \Gamma(p+2)$ , or as before .3680,1972. Thus finally  $I(14.1774454, .995) = .998,9021$ . This is correct to the last figure.

We did not proceed by this, the shorter, method in this case, because it would not have been fair to the reader to put an exceptional case, which only required uni-variate interpolation; we only selected  $u_2 = 1$  for ease in checking.

(d) *General Interpolation Illustrations, Casus I, II and III.*

We now propose to illustrate the general methods of interpolation which hold for the greater portion of the present tables. In order to do this by way of comparison we will find  $I(4.25, 7.25)$  by mid-point, mid-panel and mid-line processes. We have chosen a neutral point, where the three regions of appropriateness meet and ought accordingly to get the same answer to seven decimal places for all three. We rewrite in each case the needful data and the scheme so that each may serve without reference to the others as an illustration of its type.

*Casus I. Mid-point Formula.*

Data extracted from Table I, pp. 27-28.

$\longrightarrow p$	$p = 6.8$	$p = 7.0$	$p = 7.2$
	$z_{-1, -1}$	$z_{-1, 0}$	$z_{-1, 1}$
$u = 3.9$	.865,1402 - 18207 - 1842 + 83 —	.858,7905 - 18658 - 1835 + 101 —	.852,2574 - 19088 - 1824 + 120 —
$u = 4.0$	$z_{0, -1}$ .881,6070 - 17039 - 1746 + 47 —	$z_{0, 0}$ .875,9367 - 17520 - 1747 + 63 —	$z_{0, 1}$ .870,0917 - 17985 - 1745 + 80 —
$u = 4.1$	$z_{1, -1}$ .896,3699 - 15824 - 1635 + 18 —	$z_{1, 0}$ .891,3309 - 16319 - 1643 + 30 —	$z_{1, 1}$ .886,1275 - 16802 - 1649 + 43 —

The fourth differences of  $I(u, p)$  for  $p$  are negligible throughout. The 'corner' values of  $\delta^4_u$ , i.e. 83, 120, 18 and 43, are not needed and might be omitted.

\* *Tracts for Computers*, No. II, p. 20.

As we have chosen our axes both  $\theta$  and  $\chi$  are positive and we have the following scheme:

Function	Value	Product	Value	Coefficient
$z_{0,0}$	+ .875,9367	+ .875,9367	+ 1	+ 1
$z_{0,1} - z_{0,-1}$	- .011,5153	- .0014,39413	+ .125	+ $\frac{1}{2}\chi$
$z_{1,0} - z_{-1,0}$	+ .032,5404	+ .0040,67550	+ .125	+ $\frac{1}{2}\theta$
$z_{1,1} - z_{1,-1} - z_{-1,1} + z_{-1,-1}$	+ .002,6404	+ .0000,41256	+ .015,625	+ $\frac{1}{4}\theta\chi$
$\delta^2 z_{0,0}$	- .0001,747	- .0000,05289	+ .0302,7344	+ $\frac{1}{8}\chi^2(1 - \frac{1}{2}\theta^2)$
$\delta^2 z_{0,1} + \delta^2 z_{-1,0} + \delta^2 z_{0,1} + \delta^2 z_{0,-1}$	- .0017,520	- .0000,53039	+ .0302,7344	+ $\frac{1}{8}\theta^2(1 - \frac{1}{2}\chi^2)$
$\delta^2 z_{0,1} - \delta^2 z_{-1,0} - \delta^2 z_{0,-1}$	- .0000,946	- .0000,00370	+ .0004,8828	+ $\frac{1}{4}\theta^2\chi$
$\delta^2 z_{1,0} - \delta^2 z_{-1,0}$	+ .0000,192	+ .0000,00075	+ .0039,0625	+ $\frac{1}{4}\chi^2\theta$
$\delta^2 z_{1,0} - \delta^2 z_{-1,0}$	+ .0002,339	- .0000,04568	- .0195,3125	- $\frac{1}{12}\theta(1 - \theta^2)$
$\delta^2 z_{0,1} - \delta^2 z_{-1,0}$	+ .0000,001	- .0000,00002	- .0195,3125	- $\frac{1}{12}\chi(1 - \chi^2)$
$\delta^2 z_{1,1} - \delta^2 z_{-1,1} - \delta^2 z_{-1,1} + \delta^2 z_{-1,-1}$	- .0000,097	+ .0000,00024	- .0024,4141	- $\frac{1}{24}\theta\chi(1 - \theta^2)$
$\delta^2 z_{1,1} - \delta^2 z_{-1,1} - \delta^2 z_{-1,1} + \delta^2 z_{-1,-1}$	- .0000,032	+ .0000,00008	- .0024,4141	- $\frac{1}{24}\chi\theta(1 - \chi^2)$
$\delta^4 z_{0,0}$	+ .0000,063	- .0000,00015	- .0024,4141	- $\frac{1}{24}\theta^2(1 - \theta^2)$
$\delta^4 z_{0,0}$	- .0000,000	- .0000,00000	- .0024,4141	- $\frac{1}{24}\chi^2(1 - \chi^2)$

Sum of products\* = .878,5410 to seven decimals and this is the value of  $I$  (4.25, 7.25).

Casus II. Mid-panel Formula.

This has the appearance of greater simplicity both in extracted data and in the scheme, and the computer may prefer to work with it except in cases where the extreme accuracy possible from the tables is desired.

Data extracted from Table I, pp. 27-28†.

→ $p$	$p = 7.0$	$p = 7.2$
	$z_{0,0}$	$z_{0,1}$
$u = 4.0$	.875,9367	.870,0917
$u$ ↓	- 17520 - 1747	- 17985 - 1745
	+ 63 — {+ 16}	+ 80 — {+ 17}
	$z_{1,0}$	$z_{1,1}$
$u = 4.1$	.891,3309	.886,1275
	- 16319 - 1643	- 16802 - 1649
	+ 30 — {+ 12}	+ 43 — {+ 10}

This brevity in extraction is, however, somewhat specious for we have to find in addition to the above differences:

$$\delta^2\delta^2z_{0,0}, \delta^2\delta^2z_{0,1}, \delta^2\delta^2z_{1,0}, \delta^2\delta^2z_{1,1},$$

where  $\delta^2\delta^2z_{0,0} = \delta^2z_{0,1} + \delta^2z_{0,-1} - 2\delta^2z_{0,0}$ ,  $\delta^2\delta^2z_{1,0} = \delta^2z_{1,1} + \delta^2z_{1,-1} - 2\delta^2z_{1,0}$ ,  
 $\delta^2\delta^2z_{0,1} = \delta^2z_{1,1} + \delta^2z_{-1,1} - 2\delta^2z_{0,1}$ ,  $\delta^2\delta^2z_{1,1} = \delta^2z_{1,0} + \delta^2z_{1,2} - 2\delta^2z_{1,1}$ .

We accordingly require to extract from the tables beyond the above data:

$$(u = 4.0, p = 6.8) \delta^2z_{0,-1} = - 17039; (u = 3.9, p = 7.2) \delta^2z_{-1,1} = - 1824;$$

$$(u = 4.1, p = 6.8) \delta^2z_{1,-1} = - 15824; (u = 4.1, p = 7.4) \delta^2z_{1,2} = - 17275.$$

This may occasion the computer some liability to error, unless he has originally put down a wider plan of  $z$ 's from the tables to indicate exactly what he needs; without this one may easily confuse the  $z$ 's. We obtain  $\delta^2\delta^2z_{0,0} = + 16$ ,  $\delta^2\delta^2z_{0,1} = + 17$ , and  $\delta^2\delta^2z_{1,0} = + 12$ ,  $\delta^2\delta^2z_{1,1} = + 10$ .

Here we must warn the reader that each cross-difference gives two methods of determination and these will not give precisely the same values owing to raising of the seventh figure, but the final accuracy owing to the multiplying coefficients is the same. Here we might have taken

$$\delta^2\delta^2z_{0,0} = \delta^2z_{1,0} + \delta^2z_{-1,0} - 2\delta^2z_{0,0} = + 16, \quad \delta^2\delta^2z_{1,0} = \delta^2z_{2,0} + \delta^2z_{0,0} - 2\delta^2z_{1,0} = + 10,$$

$$\delta^2\delta^2z_{0,1} = \delta^2z_{0,0} + \delta^2z_{0,2} - 2\delta^2z_{0,1} = + 18, \quad \delta^2\delta^2z_{1,1} = \delta^2z_{0,1} + \delta^2z_{2,1} - 2\delta^2z_{1,1} = + 13.$$

It is immaterial which system or combination of systems we adopt. There are 24 coefficients to be dealt with in the general case and it is only because we have chosen the special case of  $\theta = .25$ ,  $\phi = .75$ ,  $\chi = .25$ ,  $\psi = .75$  that certain coefficients become equal; we have maintained the complete system for the purpose of illustration in our scheme.

\* The trained computer would naturally simplify here, as in many other cases, the number of products written down. Our purpose is to exhibit all contributions.

† Quantities in curled brackets are the cross-differences.

Function	Value	Product	Value	Coefficient
$z_{0,0}$	+ .875,9367	+ .4927,14394	+ .5625	+ $\phi\psi$
$z_{0,1}$	+ .870,0917	+ .1631,42194	+ .1875	+ $\phi\chi$
$z_{1,0}$	+ .891,3309	+ .1671,24544	+ .1875	+ $\theta\psi$
$z_{1,1}$	+ .886,1275	+ .0553,82969	+ .0625	+ $\theta\chi$
$\delta^2 z_{0,0}$	- .001,7520	+ .0000,71859	- .0410,15625	- $\frac{1}{6}\theta\phi(1+\phi)\psi$
$\delta^2 z_{0,1}$	- .001,7985	+ .0000,24589	- .0136,71875	- $\frac{1}{6}\theta\phi(1+\phi)\chi$
$\delta^2 z_{1,0}$	- .001,6319	+ .0000,47810	- .0292,96875	- $\frac{1}{6}\theta\phi(1+\theta)\psi$
$\delta^2 z_{1,1}$	- .001,6802	+ .0000,16408	- .0097,65625	- $\frac{1}{6}\theta\phi(1+\theta)\chi$
$\delta'^2 z_{0,0}$	- .000,1747	+ .0000,07165	- .0410,15625	- $\frac{1}{6}\chi\psi(1+\psi)\phi$
$\delta'^2 z_{1,0}$	- .000,1643	+ .0000,02246	- .0136,71875	- $\frac{1}{6}\chi\psi(1+\psi)\theta$
$\delta'^2 z_{0,1}$	- .000,1745	+ .0000,05112	- .0292,96875	- $\frac{1}{6}\chi\psi(1+\chi)\phi$
$\delta'^2 z_{1,1}$	- .000,1649	+ .0000,01610	- .0097,65625	- $\frac{1}{6}\chi\psi(1+\chi)\theta$
$\delta^4 z_{0,0}$	+ .000,0063	+ .0000,00044	+ .0070,49561	+ $\frac{1}{120}\phi(1-\phi^2)(4-\phi^2)\psi$
$\delta^4 z_{0,1}$	+ .000,0080	+ .0000,00019	+ .0023,49854	+ $\frac{1}{120}\phi(1-\phi^2)(4-\phi^2)\chi$
$\delta^4 z_{1,0}$	+ .000,0030	+ .0000,00017	+ .0057,67822	+ $\frac{1}{120}\theta(1-\theta^2)(4-\theta^2)\psi$
$\delta^4 z_{1,1}$	+ .000,0043	+ .0000,00008	+ .0019,22607	+ $\frac{1}{120}\theta(1-\theta^2)(4-\theta^2)\chi$
$\delta^2\delta'^2 z_{0,0}$	+ .000,0016	+ .0000,00005	+ .0029,90722	+ $\frac{1}{360}\theta\phi\chi\psi(1+\phi)(1+\psi)$
$\delta^2\delta'^2 z_{0,1}$	+ .000,0017	+ .0000,00004	+ .0021,36230	+ $\frac{1}{360}\theta\phi\chi\psi(1+\phi)(1+\chi)$
$\delta^2\delta'^2 z_{1,0}$	+ .000,0012	+ .0000,00003	+ .0021,36230	+ $\frac{1}{360}\theta\phi\chi\psi(1+\theta)(1+\psi)$
$\delta^2\delta'^2 z_{1,1}$	+ .000,0010	+ .0000,00002	+ .0015,25879	+ $\frac{1}{360}\theta\phi\chi\psi(1+\theta)(1+\chi)$
$\delta'^4 z_{0,0}$	+ .000,0000	+ .0000,00000	+ .0070,49561	+ $\frac{1}{120}\psi(1-\psi^2)(4-\psi^2)\phi$
$\delta'^4 z_{1,0}$	+ .000,0000	+ .0000,00000	+ .0023,49854	+ $\frac{1}{120}\psi(1-\psi^2)(4-\psi^2)\theta$
$\delta'^4 z_{0,1}$	+ .000,0000	+ .0000,00000	+ .0057,67822	+ $\frac{1}{120}\chi(1-\chi^2)(4-\chi^2)\phi$
$\delta'^4 z_{1,1}$	+ .000,0000	+ .0000,00000	+ .0019,22607	+ $\frac{1}{120}\chi(1-\chi^2)(4-\chi^2)\theta$

The sum of the products to seven figures is .878,5410, as before. The values of the coefficients can be written down promptly from Thompson's Tables of the Everett coefficients\*.

As a matter of fact nothing like this amount of work is put down on paper. The skilful computer works with a continuous process on the machine. He recognises straight off when he has found the cross-differences that the last eight products are unnecessary for this case. The sum of the products is obtained by a continuous machining and so the products never appear on the paper. The first column of function values is not copied out of the tables, but transferred from the tables directly to the machine. The only coefficients which it is needful to compute are:  $\phi\psi$ ,  $\phi\chi$ ,  $\theta\psi$ ,  $\theta\chi$ ,

$$\frac{1}{6}\theta\phi(1+\phi) = \frac{\phi(1-\phi^2)}{3!}, \quad \frac{1}{6}\theta\phi(1+\theta) = \frac{\theta(1-\theta^2)}{3!},$$

$$\frac{1}{6}\chi\psi(1+\psi) = \frac{\psi(1-\psi^2)}{3!}, \quad \frac{1}{6}\chi\psi(1+\chi) = \frac{\chi(1-\chi^2)}{3!},$$

$$\frac{1}{120}\theta\phi(1+\theta)(1+\phi)(2+\phi) = \frac{\phi(1-\phi^2)(4-\phi^2)}{5!} \text{ and three similar functions,}$$

$$\frac{1}{360}\theta\phi\chi\psi(1+\phi)(1+\psi) = \frac{\phi(1-\phi^2)}{3!} \times \frac{\psi(1-\psi^2)}{3!} \text{ and three similar functions.}$$

All these coefficients can be taken at once from Thompson's Tables, and the last six are unnecessary for this particular case. Each line of (xxiii) is worked out continuously and the total only placed on paper. The following scheme represents all that a facile computer puts on paper as a check for the above result.

Mid-panel I (4.25, 7.25)  $\delta^2\delta'^2 z_{0,0} = +16,$   $\theta = .25,$   $\phi\psi = .5625,$   
 $\delta^2\delta'^2 z_{0,1} = +17,$   $\phi = .75,$   $\phi\chi = .1875,$   
 $\delta^2\delta'^2 z_{1,0} = +10,$   $\chi = .25,$   $\theta\psi = .1875,$   
 $\delta^2\delta'^2 z_{1,1} = +13,$   $\psi = .75,$   $\theta\chi = .0625.$

	.873641	000		$\frac{1}{6}\theta\phi = \frac{1}{6}\chi\psi = .03125$
- 30863   4375}	= - 51413   1250	→ 1606	660	$\frac{1}{120}\theta\phi(1+\theta)(1+\phi) = .0034,17968$
- 20549   6875}				$\frac{1}{360}\theta\phi\chi\psi = .0009,7656$
- 3011   7500}	= - 5163   0000	→ 161	344	$(1+\phi)(1+\psi) = 3.0625$
- 2151   2500}				$(1+\theta)(1+\chi) = 1.5625$
+ 184   9375}	= + 259   7500	→	888	$(1+\phi)(1+\chi) = (1+\theta)(1+\psi) = 2.1875$
+ 74   8125}				
	.878,5410	127		

\* *Tracts for Computers*, No. v. Cambridge University Press. For example,  $\frac{1}{360}\theta\phi\chi\psi(1+\theta)(1+\chi) = \epsilon_2(\theta) \times \epsilon_2(\chi).$

Casus III. Mid-side Formula.

		→ p				
		p = 6.8		p = 7.0		p = 7.2
		$z_{0,-1}$		$z_{0,0}$		$z_{0,1}$
	u = 4.0	.881,6070		.875,9367		.870,0917
		- 17039	- 1746	- 17520	- 1747	- 17985 - 1745
		+ 47	—	+ 63	—	+ 80 —
		{ + 16 }				
		$z_{1,-1}$		$z_{1,0}$		$z_{1,1}$
	u = 4.1	.896,3699		.891,3309		.886,1275
		- 15824	- 1635	- 16319	- 1643	- 16802 - 1649
		+ 18	—	+ 30	—	+ 43 —
		{ + 12 }				

The above contains all the data that need to be extracted from Table I. The values of  $\delta^2\delta'^2z_{0,0}$ ,  $\delta^2\delta'^2z_{1,0}$  in curled brackets can be found at once from the above material, but it is, perhaps, better to use (xxiv) *bis* rather than (xxiv). The requisite scheme is given below:

Function	Value	Product	Value	Coefficient
$z_{0,0}$	+ .875,9367	+ .6569,52525	+ .75	+ $\phi$
$z_{1,0}$	+ .891,3309	+ .2228,32725	+ .25	+ $\theta$
$z_{0,1} - z_{0,-1}$	- .011,5153	- .0010,79559	+ .09375	+ $\frac{1}{2}\chi\phi$
$z_{1,1} - z_{1,-1}$	- .010,2424	- .0003,20075	+ .03125	+ $\frac{1}{2}\chi\theta$
$\delta'^2z_{0,0}$	- .000,1747	- .0000,04095	+ .023,4375	+ $\frac{1}{2}\chi^2\phi$
$\delta^2z_{1,0}$	- .000,1643	- .0000,01284	+ .007,8125	+ $\frac{1}{2}\chi^2\theta$
$\delta^2z_{0,0}$	- .001,7520	+ .0000,89824	- .051,26953	- $(1 - \chi^2)\{\phi(1 - \phi^2)\}/3!$
$\delta^2z_{1,0}$	- .001,6319	+ .0000,59762	- .036,62109	- $(1 - \chi^2)\{\theta(1 - \theta^2)\}/3!$
$\delta^2z_{0,1}$	- .001,7985	+ .0000,15368	- .008,54492	- $\frac{1}{2}\chi(1 + \chi)\{\phi(1 - \phi^2)\}/3!$
$\delta^2z_{0,-1}$	- .001,7039	- .0000,08736	+ .005,12695	+ $\frac{1}{2}\chi(1 - \chi)\{\phi(1 - \phi^2)\}/3!$
$\delta^2z_{1,1}$	- .001,6802	+ .0000,10255	- .006,10352	+ $\frac{1}{2}\chi(1 + \chi)\{\theta(1 - \theta^2)\}/3!$
$\delta^2z_{1,-1}$	- .001,5824	- .0000,05795	+ .003,66211	+ $\frac{1}{2}\chi(1 - \chi)\{\theta(1 - \theta^2)\}/3!$
$\delta'^2z_{0,1} - \delta'^2z_{0,-1}$	+ .000,0001	- .0000,00001	- .014,64844	- $\frac{1}{2}\phi\{\chi(1 - \chi^2)\}/3!$
$\delta'^2z_{1,1} - \delta'^2z_{1,-1}$	+ .000,0014	+ .0000,00007	- .004,88281	- $\frac{1}{2}\theta\{\chi(1 - \chi^2)\}/3!$
$\delta'^4z_{0,0}$	- .000,0000	+ .0000,00000	- .001,83105	- $\frac{1}{2}\chi\phi\{\chi(1 - \chi^2)\}/3!$
$\delta'^4z_{1,0}$	- .000,0000	+ .0000,00000	- .000,60938	- $\frac{1}{2}\chi\theta\{\chi(1 - \chi^2)\}/3!$
$\delta^4z_{0,0}$	+ .000,0063	+ .0000,00059	+ .009,39941	+ $\frac{1}{2}\phi\theta(1 - \phi^2)(4 - \phi^2)$
$\delta^4z_{1,0}$	+ .000,0030	+ .0000,00023	+ .007,69043	+ $\frac{1}{2}\theta\phi(1 - \theta^2)(4 - \theta^2)$

The sum of the products is to seven figures .878,5410, which is accordingly  $I(4.25, 7.25)$ .

Casus I, Casus II and Casus III give precisely the same result as they should do since fifth order differences are negligible. As in the instance of Casus II the labour of Casus III can be much curtailed by continuous processes on the machine. The occasional user of the tables is, however, recommended to use a full scheme. The reader will observe that linear differences would not give even four-figure accuracy.

(e) Methods applicable to Region 4 of Key.

We may take as illustration here  $I(1.21, -.36)$ . We first try Table III directly. Here  $\theta = .2, \chi = .1$  and a mid-point formula is to be used. The following is the scheme:

Function	Value	Product	Value	Coefficient
$z_{0,0}$	+ 1.8368,7736	+ 1.8368,7736	+ 1.0	1
$z_{0,1} - z_{0,-1}$	- .0219,0781	- .00109,53905	+ .05	$\frac{1}{2}\chi$
$z_{1,0} - z_{-1,0}$	+ .0203,3952	+ .00203,39520	+ .1	$\frac{1}{2}\theta$
$z_{1,1} - z_{1,-1} - z_{-1,1} + z_{-1,-1}$	+ .0037,7065	+ .00001,88533	+ .005	$\frac{1}{2}\chi\theta$
$\delta'^2z_{0,0}$	+ .0002,1631	+ .00000,10599	+ .0049	$\frac{1}{2}\chi^2(1 - \frac{1}{2}\theta^2)$
$\delta^2z_{0,0}$	+ .0000,0120	+ .00000,00239	+ .0199	$\frac{1}{2}\theta^2(1 - \frac{1}{2}\chi^2)$
$\delta'^2z_{1,0} + \delta'^2z_{-1,0} + \delta'^2z_{0,1} + \delta'^2z_{0,-1}$	+ .0008,6482	+ .00000,00432	+ .00005	$\frac{1}{2}\theta^2\chi^2$
$\delta^2z_{0,1} - \delta^2z_{0,-1}$	+ .0000,0317	+ .00000,00032	+ .001	$\frac{1}{2}\theta^2\chi$
$\delta'^2z_{1,0} - \delta'^2z_{-1,0}$	- .0000,3769	- .00000,00188	+ .0005	$\frac{1}{2}\theta\chi$
$\delta^2z_{1,0} - \delta^2z_{-1,0}$	+ .0000,2780	- .00000,00448	- .016	$\frac{1}{2}\theta(1 - \theta^2)$
$\delta^2z_{0,1} - \delta^2z_{0,-1}$	- .0000,0745	+ .00000,00615	- .00825	$\frac{1}{2}\chi(1 - \chi^2)$
$\delta^2z_{1,1} - \delta^2z_{1,-1} - \delta^2z_{-1,1} + \delta^2z_{-1,-1}$	- .0000,0415	+ .00000,00033	- .0008	$\frac{1}{2}\theta\chi(1 - \theta^2)$
$\delta^2z_{1,1} - \delta^2z_{1,-1} - \delta'^2z_{-1,1} + \delta'^2z_{-1,-1}$	+ .0000,0066	- .00000,00005	- .000825	$\frac{1}{2}\chi\theta\chi(1 - \chi^2)$
$\delta^4z_{0,0}$	+ .0000,0325	- .00000,00052	- .0016	$\frac{1}{2}\chi^2\theta^2(1 - \theta^2)$
$\delta^4z_{1,0}$	- .0000,0006	+ .00000,00000	- .0004125	$\frac{1}{2}\chi^2(1 - \chi^2)$

Sum of products is 1.83783,54954. Adding  $(p + 1) \log u = .05298,2637$ , we have for  $\log I(u, p)$  the value .8908,18132 of which the anti-logarithm is .777,7107. The correct value of eight figures is .777,71079. Thus Table III directly applied gives an error of unity in the seventh figure.

If, however, we throw the value forward and then use Table III we get the value correct to seven figures. We term this *Method C*, we have

$$I(1.21, -.36) = \frac{\xi^{p+1}e^{-\xi}}{\Gamma(p+2)} \left( 1 + \frac{\xi}{p+2} + \frac{\xi^2}{(p+2)(p+3)} \right) + I(.507, 3699, 2.64),$$

$$1 + \frac{\xi}{p+2} + \frac{\xi^2}{(p+2)(p+3)} = 1.80666, 66667, \quad \frac{\xi^{p+1}e^{-\xi}}{\Gamma(p+2)} = .4139, 77219.$$

Or, 
$$\frac{\xi^{p+1}e^{-\xi}}{\Gamma(p+2)} \left( 1 + \frac{\xi}{p+2} + \frac{\xi^2}{(p+2)(p+3)} \right) = .7479, 1884.$$

Using the process just illustrated to find  $I(.507, 3699, 2.64)$ , we have for its value\* + .0297, 91993.

Thus  $I(1.21, -.36) = .777, 71083$  which is correct to the seventh figure. Thus if we desire in Region 4 of *Key* to be correct to the seventh place it is desirable to throw forward and use Table III, rather than apply it directly. That is, we must use *Method C*.

(f) Calculation of  $I(u, p)$  beyond the Tabulated Values.

We now pass to values of our function beyond the limit of the tables, i.e.  $p > 50$ .

In the region from  $p = 50$  to  $p = 70$  it will generally be found safest to throw back into the table by formulae (xxix).

*Illustration of Method D* in the Region 26 of the *Key*. To find  $I(9.31, 64.61)$ .

Here  $\xi = u\sqrt{p+1} = 75.411$ . We shall need 14 terms to throw back into the table for

$$p - n - 1 = 64.61 - 15 = 49.61, \quad u_{-n} = 9.31 \times \sqrt{64.61/50.61} = 10.519, 1678.$$

Hence we need to determine from the tables  $I(10.5191678, 49.61)$ , the values are  $\theta = .191678$ ,  $\chi = .05$  and thus the mid-point formula is the appropriate one for interpolation. It gives

$$I(10.5191678, 49.61) = .998, 7426.$$

It did not seem needful to illustrate further the process, which has already been indicated on p. xxiii. It therefore remains only to consider the series calculation.

$p$	$p/\xi$	Series
—	—	1.0
64.61	.85677, 15585	.85677, 15585
63.61	.84351, 08936	.72269, 61429
62.61	.83025, 02287	.60001, 86379
61.61	.81698, 95639	.49020, 89653
60.61	.80372, 88990	.39399, 51120
59.61	.79046, 82341	.31144, 06204
58.61	.77720, 75692	.24205, 40075
57.61	.76394, 69043	.18491, 64097
56.61	.75068, 62395	.13881, 142042
55.61	.73742, 55745	.10236, 51443
54.61	.72416, 49096	.07412, 92455
53.61	.71090, 42447	.05269, 87953
52.61	.69764, 35798	.03676, 49762
		5.20687, 38197

This is best arranged as in the table above. The first column contains the reducing values of the numerators of  $(p-s)/\xi$  from  $s = 0$  to 14. These are multiplied by the reciprocal of  $\xi$  in the second column, the value of  $1/\xi$  being maintained on the machine, and the first multiplier reduced by successive units without clearing the machine; the third column gives the results of multiplying the successive values in the third column by the number one line lower in the second column. Thus .24205, 40075 is the product of .31144, 06204 and .77720, 75692. The final column summed on the machine is the sum of the series.

We have next to calculate the factor outside the series.  $\log \Gamma(p+1)$  was obtained by interpolation into Degen's Tables of Factorials:

$$\left. \begin{aligned} \log e^{-\xi} &= - 32.75058, 11748, \\ \log \xi^p &= + 121.30105, 59605, \\ - \log \Gamma(p+1) &= - 90.20849, 97418, \end{aligned} \right\} \log \frac{e^{-\xi} \xi^p}{\Gamma(p+1)} = - 1.65802, 49561,$$

$$\log 5.20687, 38197 = .71657, 70534. \quad \text{Hence series and factor} = .1144, 3321.$$

\* If Table I be used to find  $I(.507, 3699, 2.64)$  we obtain .0297, 92056, which gives  $I(1.21, -.36) = .777, 7109$ , one out in the seventh place.

Subtracting this from the reduced  $I(u_{-n}, p - n - 1)$  we have  $I(9.31, 64.61) = .884,3094$ .

This method is more rapid than 'throwing forward' into a part of the table where  $I(u_{n+1}, p + n)$  is zero to the degree of accuracy required (Method  $D'$ ). Some computers may prefer this latter method as more homogeneous in that it avoids the interpolation.

*Illustration of Method  $D'$ . 'Throwing Forward.'*

Suppose we require  $I(5.0, 63)$ . Here  $\xi = \sqrt{p + 1}$ ,  $u = 40$ , and we use (xxviii).

$s = 2$ to 30	$\xi/(p + s)$	Products
—	—	1.0
40/65	.61538,46153	.6153,84615
40/66	.60606,06060	.3729,60373
40/67	.59701,49254	.2226,62909
40/68	.58823,52941	.1309,78182
40/69	.57971,01449	759,29381
40/70	.57142,85714	433,88218
40/71	.56338,02817	244,44066
40/72	.55555,55556	135,80037
40/73	.54794,52055	74,41116
40/74	.54054,05405	40,22225
40/75	.53333,33333	21,45187
40/76	.52631,57895	11,29046
40/77	.51948,05195	5,86517
40/78	.51282,05128	3,00778
40/79	.50632,91139	1,52293
40/80	.50000,00000	76146
40/81	.49382,71605	37603
40/82	.48780,488..	18343
40/83	.48192,771..	8840
40/84	.47619,048..	4210
40/85	.47058,824..	1981
40/86	.46511,628..	921
40/87	.45977,012..	424
40/88	.45454,5....	193
40/89	.44943,8....	87
40/90	.44444,4....	38
40/91	.43956,0....	17
40/92	.43478,.....	7
40/93	.43011,.....	3
40/94	.42553,.....	1
		<hr/> 2.5152,53757

To this we must add

$$\begin{aligned} \log e^{-\xi} &= - 17.37177,92761, \\ (p + 1) \log \xi &= + 102.53183,94432, \\ - \Gamma(p + 2) &= - 89.10341,68973, \\ \log \frac{e^{-\xi} \xi^{p+1}}{\Gamma(p + 2)} &= - 3.94335,67302. \end{aligned}$$

But

$$\log 2.5152,53757 = .40058,1806.$$

Accordingly

$$\begin{aligned} \log I(5.0, 63) &= \bar{4}.45722,5076, \\ \text{or } I(5.0, 63) &= .000,2866. \end{aligned}$$

It frequently happens that the value of  $I(u, p)$  for a large  $p$  is zero to the number of figures required, and it would be very wasteful of time to compute the series to many terms to ascertain this.

We can proceed as follows:—The series is clearly less than

$$1 + \frac{\xi}{p + 2} + \left(\frac{\xi}{p + 2}\right)^2 + \left(\frac{\xi}{p + 3}\right)^3 + \dots, \text{ i.e. less than } 1 / \left(1 - \frac{\xi}{p + 2}\right) \text{ or } \frac{p + 2}{p + 2 - \xi}.$$

Hence 
$$I(\xi, p) \text{ is } < \frac{p + 2}{p + 2 - \xi} \frac{e^{-\xi} \xi^{p+1}}{\Gamma(p + 2)} \dots\dots\dots(xlv).$$

For example, it is not obvious that if  $\xi = 25.272$  and  $p = 64.61$ , that  $I(\xi, p)$  will be zero; but it is rapidly ascertained to be so by evaluating the right-hand side of the above inequality. The Method  $D'$  of 'throwing forward' to a zero region of the function will only be successful if  $\xi$  is relatively small, otherwise the number of terms becomes very serious.

(g) *On Methods of finding a value in the Neighbourhood of the Mode, but outside the Limits of the Tables. Methods E and E'.*

Method  $E$  has been discussed on p. xvi. We will illustrate it by two or three examples here\*, as it is of some importance. Consider

$$y = x^{48}e^{-x}/\Gamma(49).$$

The distance from mode to median  $d$  is given by (xx) and is  $d = .6670,7279$ .

The computed values of the ordinates, using Degen's tables to find  $\Gamma(49)$ , are

$$\begin{aligned} x_1 = 46: y_1 &= .0550,70750, & x_3 = 49: y_3 &= .0568,94916, \\ x_2 = 48: y_2 &= .0574,82480, & x_4 = 51: y_4 &= .0525,34077. \end{aligned}$$

\* The values of  $p$  are taken within our tables solely to test the accuracy of the results obtained. Actually  $p$  will be outside our tables and the errors less than those here recorded.



Hence (xxxii) becomes\*

$$\int_0^{48+d'} \frac{x^{48} e^{-x}}{\Gamma(49)} dx = 0.5 + .0574,82480 (d' - d) - .0001,993954 (d'^3 - d^3) + .0000,01968125 (d'^4 - d^4) + .0000,0054992 (d'^5 - d^5).$$

Let us take  $d' = 3.1$ . We find the integral = .634,3084. The correct value is .634,3110 or the answer is correct to 3 in the sixth figure.

Put  $d' = -1.8$  and we find  $\int_0^{46.2} \frac{x^{48} e^{-x}}{\Gamma(49)} dx = .359,4184,$

the correct answer being .359,4195, or an error of 1 in the sixth figure.

The quartic will be found to give results correct to the fifth figure between 45.5 and 51.1. We have chosen  $p$  of order below 50 that we may be able to test the accuracy from our tables, but with values above 70, or, say, of order 100, we may be sure of accuracy to the sixth figure, and for areas between mode and mean to the seventh.  $d' = p \pm 3$  is the reasonable area for application of this formula.

We may compare the results above obtained with those found by the Method  $E'$  of p. xviii. That formula may be written

$$\int_0^{p+d'} \frac{x^p e^{-x}}{\Gamma(p+1)} dx = .5 + \frac{\sqrt{2\pi p} e^{-p} p^p}{\Gamma(p+1)} \left[ \mu_0(\bar{d}') - \mu_0(\bar{d}) + \frac{1}{\sqrt{p}} \left\{ \frac{2}{3} \{m_3(\bar{d}') - m_3(\bar{d})\} + \frac{1}{(\sqrt{p})^2} \left\{ \frac{5}{6} (m_6(\bar{d}') - m_6(\bar{d})) - \frac{3}{4} (m_4(\bar{d}') - m_4(\bar{d})) \right\} + \frac{1}{(\sqrt{p})^3} \left\{ \frac{6}{5} (m_9(\bar{d}') - m_9(\bar{d})) - 4 (m_7(\bar{d}') - m_7(\bar{d})) + \frac{8}{5} (m_5(\bar{d}') - m_5(\bar{d})) \right\} \right] \dots\dots\dots(xlvi),$$

where  $\bar{d}' = d'/\sqrt{p}, \bar{d} = d/\sqrt{p}$ .

To compare with the above case we must take  $\bar{d}' = 3.1/\sqrt{48} = .447,4465, \bar{d} = .6670,7279/\sqrt{48} = .096,2837$ .

We have, using Degen,  $\log \Gamma(49) = 61.09390,87881,$

and by aid of Vega's 10-figure logarithms we find

$$\log \frac{\sqrt{2\pi p} e^{-p} p^p}{\Gamma(p+1)} = \bar{1}.99924,60287, \text{ or } \frac{\sqrt{2\pi p} e^{-p} p^p}{\Gamma(p+1)} = .99826,54237.$$

From the Tables of the Probability Integral we have  $\mu_0(\bar{d}') - \mu_0(\bar{d}) = .672,7205 - .538,3514 = .134,3691$ .

Thus the value as found by supposing the curve to be simply a curve of errors is .634,1360 as against the correct value .634,3110, or we have an error of 2 in the fourth place.

We will now add in the  $m_3$  terms, interpolating from the *Tables for Statisticians*, p. 22. Interpolating by central differences up to  $\delta^4$  inclusive we have, for  $m_3(\bar{d}')$ , and by forward differences, for  $m_3(\bar{d})$ ,

$$m_3(\bar{d}') = .0018703, \quad m_3(\bar{d}) = .000,0043.$$

Hence  $\frac{1}{\sqrt{p}} \frac{2}{3} \{m_3(\bar{d}') - m_3(\bar{d})\} = .000,1796$  and multiplying by the external factor we have .000,1793 to add, we find as our second approximation .634,3153, which is only in excess by four units in the sixth figure. It is thus only very slightly inferior to the quartic method, which we saw was three units out in the sixth figure.

We proceed to a still higher approximation;  $m_4(\bar{d})$  and  $m_6(\bar{d})$  contribute nothing and we only need  $m_4(\bar{d}')$  and  $m_6(\bar{d}')$ . We find  $m_4(\bar{d}') = .000,4441, \quad m_6(\bar{d}') = .000,0122.$

Substituting, we find that  $-.000,0067$  is the value contributed by the third approximation, or the result is .634,3086, which is only two out in the sixth place instead of four. Thus the next approximation has not produced correctness to the sixth figure. The next term, if included, leads to a result out by slightly less than two in the sixth place of decimals. Thus after the  $m_3$  terms we have not a very rapid approach to seven-figure accuracy. Several other results were tried; on the whole the quartic gave slightly better results, possibly with slightly greater labour. If we get further from the mode the result becomes less exact. Thus

$$\int_{49}^{56} \frac{x^{49} e^{-x}}{\Gamma(50)} dx = .343,9900,$$

but taking  $I(7.9195,9595,49)$  and  $I(6.9296,4646,49)$  out of the tables their difference is .343,9617, or the above process will be three out in the fifth figure†. We must therefore for greater accuracy fall back on some of the other processes already discussed.

\* If the coefficients of the  $d', d$  factors be called respectively  $a_0, a_2, a_3, a_4$  then a test of accuracy is that  $a_0 + 3a_2 + 4a_3 + 5a_4 = y_3$ .  
 † Of course for  $p > 70$  greater accuracy say to the sixth decimal place is possible by the above methods within the range  $p \pm 5$ .

(h) *On the use of Quadratures to determine the Value of  $I(u, p)$  beyond the Limits of the Tables.*

We have already indicated that Weddle with 18 to 24 terms will give results accurate to about six places of decimals.

*Illustrations.* Find  $I(\xi = 102, 99)$ , or  $\int_0^{102} \frac{x^{99}e^{-x}}{\Gamma(100)} dx$ .

Since the area required covers the mode we shall find it better to evaluate  $\int_{102}^{\infty} \frac{x^{99}e^{-x}}{\Gamma(100)} dx$ .

Let us use Weddle (see equation (xxxviii)) and 24 ordinates.

The following are the computed values obtained by using Vega's 10-figure logarithms\* and Degen's value of  $\log \Gamma(100) = 155.97000,36547$ .

$x_0 = 102:$	$y_0 = .0383,15650$	$x_9 = 129:$	$y_9 = .0009,00305$	$x_{18} = 156:$	$y_{18} = .0000,00251$
$x_1 = 105:$	$y_1 = .0336,36930$	$x_{10} = 132:$	$y_{10} = .0004,36459$	$x_{19} = 159:$	$y_{19} = .0000,00082$
$x_2 = 108:$	$y_2 = .0272,36048$	$x_{11} = 135:$	$y_{11} = .0002,01041$	$x_{20} = 162:$	$y_{20} = .0000,00026$
$x_3 = 111:$	$y_3 = .0204,30724$	$x_{12} = 138:$	$y_{12} = .0000,88184$	$x_{21} = 165:$	$y_{21} = .0000,00008$
$x_4 = 114:$	$y_4 = .0142,56263$	$x_{13} = 141:$	$y_{13} = .0000,36912$	$x_{22} = 168:$	$y_{22} = .0000,00002$
$x_5 = 117:$	$y_5 = .0092,88429$	$x_{14} = 144:$	$y_{14} = .0000,14773$	$x_{23} = 171:$	$y_{23} = .0000,000007$
$x_6 = 120:$	$y_6 = .0056,70246$	$x_{15} = 147:$	$y_{15} = .0000,05664$	$x_{24} = 174:$	$y_{24} = .0000,000002$
$x_7 = 123:$	$y_7 = .0032,53727$	$x_{16} = 150:$	$y_{16} = .0000,02084$		$h = 3$ units
$x_8 = 126:$	$y_8 = .0017,60255$	$x_{17} = 153:$	$y_{17} = .0000,00737$		

Using (xxxviii) we find  $\int_{102}^{\infty} \frac{x^{99}e^{-x}}{\Gamma(100)} dx = .408,2836$ , or, the required integral,  $\int_0^{102} \frac{x^{99}e^{-x}}{\Gamma(100)} dx = .591,7164$ .

To determine the value by integration by parts using (xxix) we need 49 terms, the correct value to seven figures determined by that process is .591,7186. The value as found by the quartic process of p. xvi is .591,7184. It is thus clear that the 'Weddling' gives a result only correct to 2 in the sixth figure, while the quartic is correct to 2 in the seventh figure. If we pass further from the mode, however, the relative position of the two processes is reversed.

We may take as a second illustration the evaluation of  $\int_0^{97} \frac{x^{99}e^{-x} dx}{\Gamma(100)}$ . The ordinates become significant in the tenth figure only at  $x = 49$ .

$x_0 = 49:$	$y_0 = .0000,00000$	$x_9 = 67:$	$y_9 = .0000,51722$	$x_{18} = 85:$	$y_{18} = .0134,10316$
$x_1 = 51:$	$y_1 = .0000,00001$	$x_{10} = 69:$	$y_{10} = .0001,28747$	$x_{19} = 87:$	$y_{19} = .0181,46064$
$x_2 = 53:$	$y_2 = .0000,00005$	$x_{11} = 71:$	$y_{11} = .0002,94893$	$x_{20} = 89:$	$y_{20} = .0233,02263$
$x_3 = 55:$	$y_3 = .0000,00028$	$x_{12} = 73:$	$y_{12} = .0006,24399$	$x_{21} = 91:$	$y_{21} = .0284,64026$
$x_4 = 57:$	$y_4 = .0000,00128$	$x_{13} = 75:$	$y_{13} = .0012,27369$	$x_{22} = 93:$	$y_{22} = .0331,45261$
$x_5 = 59:$	$y_5 = .0000,00526$	$x_{14} = 77:$	$y_{14} = .0022,48553$	$x_{23} = 95:$	$y_{23} = .0368,68671$
$x_6 = 61:$	$y_6 = .0000,01931$	$x_{15} = 79:$	$y_{15} = .0038,53136$	$x_{24} = 97:$	$y_{24} = .0392,49425$
$x_7 = 63:$	$y_7 = .0000,06370$	$x_{16} = 81:$	$y_{16} = .0061,96696$		$h = 2$ units
$x_8 = 65:$	$y_8 = .0000,19023$	$x_{17} = 83:$	$y_{17} = .0093,81786$		

Applying equation (xxxviii) we find  $\int_0^{97} \frac{x^{99}e^{-x}}{\Gamma(100)} dx = .393,7232$ .

We now took twelve terms only of the series and again applied Weddle with the result that we reached *exactly* the same value .393,7232. We do not think, however, that this is a very strong argument for using 12 instead of 24 ordinates to abbreviate the work, especially if the fewer ordinates' process be extended to the falling asymptotic side of the curve. The quartic curve process gave in this case the value .393,7230, differing only by 2 in the seventh figure from the quadrature. The true value obtained by computing 60 terms of (xxviii) is .393,7231.

The reader will be able to judge from the above illustrations the amount of work needful in evaluating  $I(u, p)$  beyond the limits of the tables where  $p$  is of the order 100. Less satisfactory results are obtained when  $p$  is of the order 50, and this is why the rule of throwing back into the table should be adopted. The following illustrate results obtained by Weddle's Rule†:

\* For the convenience of the reader we give two logarithms not directly provided by Vega:

$$\log e = .43429,44819,03 \text{ and } \log \sqrt{2\pi} = .39908,99341,79.$$

† Inferior results were obtained from other quadrature formulae.

Number of ordinates	Integral	Value	Error
12	$\int_0^{29.4} \frac{x^{49} e^{-x}}{\Gamma(49)} dx$	·000,5863	+ ·000,0013
16 + 2 zeros	$\int_0^{39.2} \frac{x^{49} e^{-x}}{\Gamma(49)} dx$	·072,4902	+ ·000,0041
18	$\int_0^{45} \frac{x^{49} e^{-x}}{\Gamma(49)} dx$	·294,6758	+ ·000,0047
20 + 4 zeros	$\int_0^{49} \frac{x^{49} e^{-x}}{\Gamma(49)} dx$	·518,9937	- ·000,0056
24	$\int_{49}^{\infty} \frac{x^{49} e^{-x}}{\Gamma(49)} dx$	·481,0073	+ ·000,0066

It is clear that Weddle's Rule with only 24 ordinates will not give more than five-figure accuracy, if  $p$  be as low as 60 and our bounding ordinate not very far from the mode.

(i) *Concluding Remarks.*

The reader will observe that it takes a fair amount of computing labour to obtain the value of the incomplete  $\Gamma$ -function to seven-figure accuracy beyond the limits of our tables, if the bounding ordinate be not very far from the mode, and that this labour increases as we approach the limit of the table. Thus the range of our tables was not chosen for relative ease of computing. It would have been far easier to supply the values of our integral for  $p = 50$  to 100, than from  $p = -1$  to 50. But the latter were selected as being of the greater practical use. After  $p = 70$  with populations of 1000 or under, the probable errors of random sampling would hardly allow the statistician to distinguish between the two frequency distributions

$$y = y_0 e^{-\frac{1}{2}x^2/\sigma^2} \quad \text{and} \quad y = y_0 e^{-\frac{px}{a}} \left(1 + \frac{x}{a}\right)^p.$$

He does not, indeed, need the six or seven-figure accuracy which has been our aim throughout this work. Four to five-figure accuracy is all he requires and our tables and methods will readily supply him with this, although we have felt bound to provide processes which reach nearer the standard of others, mathematicians and physicists, who may require to use our tables.

In the preparation of this Introduction I am deeply indebted to Miss Ethel M. Elderton, Miss Margaret Moul and Mr James Henderson for their aid in various laborious computations, many of which are represented in these pages by merely an individual numerical result or a single statement as to the degree of accuracy attainable by a given process. Beyond these more or less tangible facts, stands a mass of computations, usually with results of a negative character, adopted and discarded, and only mentioned here in order to warn the reader that more or less obvious suggestions have not necessarily remained untried because they are not referred to in the text. I have finally to express my deep gratitude to the Department of Scientific and Industrial Research for undertaking the publication of this work. With the very limited publication-funds of our Laboratories, rendered still more inadequate by the War, there appeared no prospect of the early issue of these Tables, and the relief not only of myself, but of the whole staff, was great when that Department came to our aid.

K. P.

(read & to pick!)

"A PAINFULL WORK, IT IS I'LL ASSURE YOU,  
AND MORE THAN DIFFICULT, WHEREIN  
WHAT TOYLE HATH BEEN TAKEN, AS NO  
MAN THINKETH, SO NO MAN BELIEVETH,  
BUT HE THAT HATH MADE THE TRIALL."

ANTONY A WOOD.

# THE INCOMPLETE $I$ -FUNCTION

TABLE I

THE  $I(u, p)$  FUNCTION  
FOR POSITIVE VALUES OF THE ARGUMENT  $p$

u	p = 0.0		p = 0.1		p = 0.2		p = 0.3		p = 0.4		p = 0.5		u
	I(u, p)	$\frac{\delta^2 I}{\delta u^2}$ $\frac{\delta^4 I}{\delta u^4}$	I(u, p)	$\frac{\delta^2 I}{\delta u^2}$ $\frac{\delta^4 I}{\delta u^4}$	I(u, p)	$\frac{\delta^2 I}{\delta u^2}$ $\frac{\delta^4 I}{\delta u^4}$	I(u, p)	$\frac{\delta^2 I}{\delta u^2}$ $\frac{\delta^4 I}{\delta u^4}$	I(u, p)	$\frac{\delta^2 I}{\delta u^2}$ $\frac{\delta^4 I}{\delta u^4}$	I(u, p)	$\frac{\delta^2 I}{\delta u^2}$ $\frac{\delta^4 I}{\delta u^4}$	
0.0	0.000000	—	0.000000	—	0.000000	—	0.000000	—	0.000000	—	0.000000	—	0.0
0.1	0.0951626	-90660 +48184 +2318	0.0757471	+23982 +38768 +1838	0.0602084	+106654 +31183 +1454	0.0477884	+149091 +25066 +1180	0.0378749	+176776 +20124 +954	0.0299738	+1954 +954	0.1
0.2	0.1812692	-81949 +46119 +826	0.1538924	-89923 +39666 +63120	0.1304822	-3439 +34139 +79086	0.1104859	+27291 +29377 +56674	0.0934274	+52343 +25961 +82833	0.0788949	+553 +553	0.2
0.3	0.2591818	-74144 +39258 +661	0.2280454	-50708 +35038 +8654	0.2004128	-25439 +31324 +15028	0.1759125	-7836 +28019 +14739	0.1542142	+10743 +25056 +20296	0.1350214	+297 +297	0.3
0.4	0.3296800	-67089 +31991 +445	0.2971276	-32839 +29350 +3143	0.2675002	-38494 +26829 +6974	0.2405556	-24202 +24643 +3121	0.2160753	-10561 +22944 +9332	0.1938594	+155 +155	0.4
0.5	0.3934693	-60702 +25419 +613	0.3609259	-51822 +23647 +1368	0.3307472	-42302 +22100 +2998	0.3027785	-32448 +20705 +4276	0.2768803	-22513 +19421 +6187	0.2529242	+81 +81	0.5
0.6	0.4511884	-54928 +19841 +208	0.4195420	-49437 +18654 +392	0.3897640	-43202 +17706 +1822	0.3617566	-36418 +16848 +75	0.3354340	-28278 +16962 +3186	0.3107176	+48 +48	0.6
0.7	0.5034147	-47200 +15249 +498	0.4732141	-46460 +14465 +243	0.4444606	-42450 +13861 +900	0.4170929	-37915 +13347 +55	0.3910599	-32857 +12898 +2016	0.3663167	+34 +34	0.7
0.8	0.5506710	-44370 +11530 +145	0.5222408	-43240 +10986 +191	0.4949092	-40858 +10901 +496	0.4686377	-37909 +10308 +929	0.4433971	-34481 +10077 +1314	0.4191642	+77 +77	0.8
0.9	0.5934303	-40939 +8563 +410	0.5669432	-39399 +8139 -76	0.5412720	-347 +93 +247	0.5163916	-3067 +779 +564	0.4922862	-2740 +34 +869	0.4689455	+31 +31	0.9
1.0	0.6321206	-36820 +6220 -94	0.6076457	-36834 +5900 -140	0.5837608	-36375 +5722 +102	0.5604481	-35475 +5638 +339	0.5376992	-34172 +5611 +555	0.5155114	+87 +87	1.0
1.1	0.6671289	-33514 +4392 -337	0.6446648	-33609 +4146 -169	0.6226121	-33097 +3977 -90	0.6009571	-32687 +3929 +177	0.5796950	-32018 +3639 +868	0.5588268	+85 +85	1.1
1.2	0.6988058	-30145 +2977 -309	0.6783030	-30969 +2724 -186	0.6580726	-31443 +2602 -54	0.6381024	-31222 +2568 -77	0.6183890	-31506 +2583 +214	0.5989349	+88 +88	1.2
1.3	0.7274682	-27276 +1896 -189	0.7088459	-28285 +1652 -184	0.6903888	-29032 +1538 -182	0.6720855	-29380 +1502 -182	0.6539324	-29780 +1590 -116	0.6359321	+1590 +1590	1.3
1.4	0.7534030	-24680 +1078 -247	0.7365603	-25802 +842 -192	0.7198018	-26720 +723 -117	0.7031156	-27432 +654 -42	0.6864978	-27943 +700 +42	0.6699500	+700 +700	1.4
1.5	0.7768698	-22331 +469 -225	0.7616945	-23511 +236 -111	0.7465428	-24525 +114 -109	0.7314025	-25378 +87 -78	0.7162689	-26064 +72 -11	0.7011425	+72 +72	1.5
1.6	0.7981035	-20275 +323 -201	0.7844776	-21396 -204 -174	0.7708313	-22460 -372 -134	0.7571518	-23393 -83 -94	0.7434336	-24196 -85 -46	0.7296795	+85 +85	1.6
1.7	0.8173165	-18284 -298 -182	0.8051211	-19457 -519 -161	0.7928738	-20331 -847 -133	0.7805618	-21604 -711 +108	0.7681877	-22374 -67 -87	0.7557225	+87 +87	1.7
1.8	0.8347011	-16328 -229 -168	0.8238189	-17677 -735 -159	0.8128632	-18566 -661 -138	0.8018214	-19718 -44 -110	0.7906864	-20619 -32 -83	0.7794552	+32 +32	1.8
1.9	0.8504314	-14970 -670 -147	0.8407488	-16051 -872 -143	0.8309790	-17077 -1000 -128	0.8211092	-18042 -1072 -115	0.8111322	-18947 -1110 -84	0.8010442	+1110 +1110	1.9
2.0	0.8646647	-13544 -763 -139	0.8560736	-14566 -954 -131	0.8473871	-15548 -1078 -121	0.8385928	-16491 -1159 -133	0.8296833	-17369 -1194 -97	0.8206544	+1194 +1194	2.0
2.1	0.8775436	-12257 -816 -128	0.8699418	-13212 -994 -120	0.8622406	-14136 -1111 -119	0.8544283	-15029 -1185 -111	0.8464975	-15888 -1230 -100	0.8384437	+1230 +1230	2.1
2.2	0.8891968	-11088 -836 -117	0.8824888	-11978 -1093 -119	0.8756805	-12845 -1138 -109	0.8687609	-13858 -1184 -106	0.8617229	-14607 -1230 -98	0.8545619	+1230 +1230	2.2
2.3	0.8997412	-10088 -839 -99	0.8938380	-10854 -1086 -104	0.8878359	-11860 -1091 -102	0.8817247	-12449 -1159 -102	0.8754976	-13222 -1204 -98	0.8691501	+1204 +1204	2.3
2.4	0.9092820	-9078 -824 -94	0.9041018	-9834 -963 -91	0.8988253	-10977 -1052 -98	0.8934436	-11812 -1118 -94	0.8879501	-12026 -1169 -92	0.8823407	+1169 +1169	2.4
2.5	0.9179150	-8216 -802 -84	0.9133822	-8965 -924 -87	0.9087570	-9950 -1065 -87	0.9040313	-10269 -1065 -88	0.8991991	-10940 -1104 -88	0.8942565	+1104 +1104	2.5
2.6	0.9257264	-7483 -772 -79	0.9217721	-8063 -881 -79	0.9177297	-8888 -952 -82	0.9135921	-9911 -1004 -84	0.9093541	-9993 -1042 -82	0.9050119	+1042 +1042	2.6
2.7	0.9327945	-6747 -742 -69	0.9293557	-7297 -833 -79	0.9258336	-7968 -861 -75	0.9222218	-9439 -932 -82	0.9185158	-9008 -974 -78	0.9147124	+974 +974	2.7
2.8	0.9391899	-6085 -708 -62	0.9362096	-6603 -786 -65	0.9331507	-7123 -842 -68	0.9300076	-7640 -878 -73	0.9267767	-8161 -906 -75	0.9234552	+906 +906	2.8
2.9	0.9449768	-5508 -877 -55	0.9424032	-5974 -741 -59	0.9397555	-6442 -784 -64	0.9370294	-6916 -818 -68	0.9342215	-7389 -840 -67	0.9313296	+840 +840	2.9
3.0	0.9502129	-4982 -644 -48	0.9479994	-5404 -698 -63	0.9457161	-5827 -782 -56	0.9433596	-6253 -757 -62	0.9409274	-6684 -777 -62	0.9384175	+777 +777	3.0
3.1	0.9549508	-4509 -616 -48	0.9530552	-4887 -656 -48	0.9510940	-5208 -683 -48	0.9490645	-5662 -701 -65	0.9469649	-6088 -714 -65	0.9447939	+714 +714	3.1
3.2	0.9592378	-4080 -589 -40	0.9576223	-4418 -617 -44	0.9559451	-4761 -637 -47	0.9540242	-5048 -624 -62	0.9523985	-5466 -658 -62	0.9505270	+658 +658	3.2
3.3	0.9631168	-3691 -562 -37	0.9617476	-3995 -583 -39	0.9603201	-4301 -593 -44	0.9588333	-4612 -600 -48	0.9572865	-4925 -604 -48	0.9556792	+604 +604	3.3
3.4	0.9666267	-3340 -539 -33	0.9654734	-3611 -551 -37	0.9642650	-3855 -554 -39	0.9630012	-4160 -554 -44	0.9616820	-4448 -558 -44	0.9603071	+558 +558	3.4
3.5	0.9698026	-3022 -519 -31	0.9688381	-3284 -522 -33	0.9678214	-3506 -517 -34	0.9667531	-3756 -515 -40	0.9656332	-4005 -512 -40	0.9644622	+512 +512	3.5
3.6	0.9726763	-2765 -501 -29	0.9718764	-2948 -493 -30	0.9710272	-3167 -486 -33	0.9701294	-3353 -477 -38	0.9691839	-3610 -471 -36	0.9681912	+471 +471	3.6
3.7	0.9752765	-2475 -484 -27	0.9746199	-2666 -470 -28	0.9739163	-2857 -456 -30	0.9731672	-3054 -444 -33	0.9723736	-3251 -433 -33	0.9715366	+433 +433	3.7
3.8	0.9776292	-2238 -468 -25	0.9770968	-2408 -448 -28	0.9765197	-2578 -429 -27	0.9758996	-2750 -429 -29	0.9752382	-2927 -402 -30	0.9745366	+402 +402	3.8
3.9	0.9797581	-2026 -454 -22	0.9793331	-2174 -427 -24	0.9788653	-2326 -404 -25	0.9783570	-2479 -386 -26	0.9778101	-2655 -372 -27	0.9772259	+372 +372	3.9
4.0	0.9816844	-1834 -442 -22	0.9813518	-1964 -409 -22	0.9809783	-2097 -383 -24	0.9805665	-2232 -363 -24	0.9801185	-2309 -345 -26	0.9796360	+345 +345	4.0
4.1	0.9834273	-1658 -428 -18	0.9831741	-1774 -393 -20	0.9828816	-1892 -363 -22	0.9825528	-2011 -340 -23	0.9821900	-2132 -321 -22	0.9817951	+321 +321	4.1
4.2	0.9850044	-1501 -416 -16	0.9848190	-1603 -379 -18	0.9845957	-1704 -344 -20	0.9843380	-1809 -320 -22	0.9840483	-1915 -298 -22	0.9837288	+298 +298	4.2
4.3	0.9864314	-1357 -405 -13	0.9863036	-1447 -364 -16	0.9861394	-1535 -329 -17	0.9859423	-1659 -301 -19	0.9857151	-1721 -279 -20	0.9854600	+279 +279	4.3
4.4	0.9877227	-1230 -396 -13	0.9876435	-1307 -350 -14	0.9875293	-1386 -314 -15	0.9873837	-1464 -283 -17	0.9872098	-1548 -263 -18	0.9870096	+263 +263	4.4
4.5	0.9888910	-1111 -388 -12	0.9888527	-1179 -338 -13	0.9887806	-1247 -298 -13	0.9886787	-1319 -271 -18	0.9885497	-1388 -245 -18	0.9883963	+245 +245	4.5
4.6	0.9899482	-1007 -376 -11	0.9899440	-1066 -326 -11	0.9899072	-1126 -286 -12	0.9898418	-1186 -256 -14	0.9897508	-1247 -230 -14	0.9896368	+230 +230	4.6
4.7	0.9909047	-910 -366 -10	0.9909287	-961 -316 -10	0.9909212	-1013 -244 -10	0.9908863	-1065 -232 -12	0.9908272	-1120 -212 -12	0.9907463	+212 +212	4.7
4.8	0.9917703	-823 -358 -9	0.9918173	-868 -305 -9	0.9918339	-919 -262 -9	0.9918243	-958 -231 -11	0.9917916	-1004 -205 -11	0.9917354	+205 +205	4.8
4.9	0.9925534	-745 -347 -8	0.9926191	-784 -294 -8	0.9926554	-823 -252 -9	0.9926665	-862 -213 -10	0.9926556	-901 -193 -10	0.9926284	+193 +193	4.9
5.0	0.9932621	-675 -339 -7	0.9933425	-707 -283 -7	0.9933946	-741 -242 -8	0.9934225	-774 -206 -9	0.9934295	-809 -183 -9	0.9934182	+183 +183	5.0
5.1	0.9939033	-611 -329 -6	0.9939952	-638 -274 -6	0.9940597	-668 -231 -8	0.9941011	-695 -200 -8	0.9941225	-726 -175 -8	0.9941266	+175 +175	5.1
5.2	0.9944834	-551 -318 -5	0.9945841	-577 -266 -6	0.9946582	-600 -200 -6	0.9947102	-626 -181 -7	0.9947431	-651 -164 -8	0.9947596	+164 +164	5.2
5.3	0.9950084	-500 -310 -5	0.9951153	-519 -255 -5	0.9951967	-541 -214 -6	0.9952567	-569 -181 -7	0.9952986	-583 -155 -7	0.9953250	+155 +155	5.3
5.4	0.9954834	-452 -300 -4	0.9955946	-470 -247 -5	0.9956811	-486 -204 -6	0.9957472	-503 -173 -6	0.9957960	-523 -149 -6	0.9958299	+149 +149	5.4
5.5	0.9959132	-409 -290 -4											

u	p = 0.5		p = 0.6		p = 0.7		p = 0.8		p = 0.9		p = 1.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
0			0.000000			0.000000			0.000000			0.000000			0			
0.1	+189473	+16135	0.0236863	+191596	+12918	0.0186906	+186495	+19325	0.0147273	+176690	+8240	0.0115881	+164037	+6565	0.0091054	+149898	+6222	0.1
0.2	+72654	+21698	0.0665322	+68986	+18613	0.0560307	+97418	+13943	0.0471236	+104193	+13635	0.0395799	+107809	+11642	0.0332006	+108779	+6925	0.2
0.3	+27113	+22390	0.1180677	+41294	+19085	0.1031126	+26199	+17817	0.0899392	+102654	+15869	0.0783517	+10037	+1276	0.0681737	+102527	+5202	0.3
0.4	+2268	+20800	0.1737236	+14104	+19096	0.1554968	+24287	+17592	0.1390202	+134365	+16023	0.1241460	+14037	+14648	0.1107365	+14798	+13370	0.4
0.5	-12714	+18218	0.2307899	-3226	+17681	0.2103637	+6812	+16092	0.1915377	+14292	+14973	0.1742090	+22124	+15988	0.1582791	+29960	+13051	0.5
0.6	-21943	+15324	0.2875336	-14555	+16622	0.2658118	-7243	+13942	0.2454842	-113	+13278	0.2264844	-6191	+44	0.2087477	+4553	+43	0.6
0.7	-27516	+12483	0.3428218	-21914	+12987	0.3205356	-16177	+11799	0.2994194	-10394	+11318	0.2794350	-4648	+10932	0.2605438	+3996	+10548	0.7
0.8	-32427	+9732	0.3959186	-29529	+9687	0.3736417	-22156	+9694	0.3523152	-17614	+9321	0.3319208	-12966	+9131	0.3124395	-8274	+8933	0.8
0.9	-32154	+7678	0.4463626	-29211	+7525	0.4245322	-26994	+7478	0.4034496	-22527	+7430	0.3831100	-18899	+7874	0.3635078	-15118	+7310	0.9
1.0	-32505	+5619	0.4938855	-39511	+5647	0.4728243	-29228	+5652	0.4523313	-25694	+5719	0.4324102	-22943	+6769	0.4130643	-20012	+6778	1.0
1.1	-32073	+3987	0.5383573	-30828	+4658	0.5182936	-29308	+4137	0.4986436	-27537	+4225	0.4794161	-25643	+4810	0.4606196	-23352	+4391	1.1
1.2	-31109	+2655	0.5797463	-20445	+2744	0.5608321	-29533	+2843	0.5422022	-28587	+2934	0.5238677	-27023	+3065	0.5058397	-25483	+3177	1.2
1.3	-29793	+1678	0.6180907	-10577	+1783	0.6004173	-29138	+1939	0.5829221	-28491	+2920	0.5656168	-27844	+2141	0.5485135	-26612	+2260	1.3
1.4	-28254	+754	0.6534776	-28372	+855	0.6370887	-28302	+931	0.6207929	-28046	+1044	0.6046015	-27616	+1160	0.5885261	-27015	+1281	1.4
1.5	-26591	+111	0.6860272	-26955	+180	0.6709299	-27160	+265	0.6558591	-27210	+383	0.6408246	-27104	+471	0.6258372	-26849	+554	1.5
1.6	-24868	-369	0.7158813	-25408	-816	0.7020551	-25816	-246	0.6882043	-26902	-162	0.6743373	-26238	-68	0.6604635	-26255	+32	1.6
1.7	-23189	-717	0.7431946	-23703	-1818	0.7305987	-24733	-423	0.7179403	-24788	-158	0.7052262	-25127	-478	0.6924643	-25354	-394	1.7
1.8	-21437	-959	0.7681281	-22171	-306	0.7567074	-22820	-897	0.7451970	-23379	-842	0.7336024	-22851	-781	0.7219297	-24239	-709	1.8
1.9	-19788	-1117	0.7908445	-20654	-1107	0.7805341	-21270	-1079	0.7701158	-21907	-1040	0.7595935	-22472	-991	0.7489721	-22965	-837	1.9
2.0	-18200	-1210	0.8115045	-18998	-1268	0.8022338	-19736	-1192	0.7928439	-20419	-1166	0.7833374	-21044	-1129	0.7737180	-21611	-1088	2.0
2.1	-16711	-1292	0.8302647	-17496	-1258	0.8219599	-18240	-1259	0.8135301	-18943	-1234	0.8049769	-19602	-1209	0.7963028	-20215	-1178	2.1
2.2	-15300	-1266	0.8472753	-16064	-1267	0.8398260	-16900	-1258	0.8323220	-17503	-1258	0.8246562	-18174	-1243	0.8168661	-18810	-1220	2.2
2.3	-13975	-1231	0.8626795	-14713	-1248	0.8560841	-15426	-1251	0.8493636	-16119	-1269	0.8425181	-16786	-1242	0.8355484	-17426	-1226	2.3
2.4	-12789	-1157	0.8766124	-13445	-1205	0.8707636	-14150	-1215	0.8647933	-14709	-1246	0.8587014	-15446	-1218	0.8524882	-16079	-1206	2.4
2.5	-11694	-1131	0.8892008	-12261	-1150	0.8840301	-12998	-1160	0.8787434	-13540	-1166	0.8733401	-14172	-1167	0.8678201	-14784	-1164	2.5
2.6	-10548	-1068	0.9005631	-11162	-1055	0.8960058	-11769	-1092	0.8913389	-12379	-1104	0.8865616	-12904	-1107	0.8816735	-13622	-1109	2.6
2.7	-9577	-998	0.9108092	-10144	-1014	0.9068046	-10709	-1026	0.9026974	-11272	-1035	0.8984867	-11832	-1041	0.8941719	-12385	-1042	2.7
2.8	-8654	-928	0.9200409	-9206	-941	0.9165325	-9730	-954	0.9129287	-10253	-963	0.9092286	-10773	-968	0.9054317	-11293	-973	2.8
2.9	-7865	-857	0.9283520	-8343	-870	0.9252874	-8823	-880	0.9221348	-9306	-899	0.9188932	-9788	-894	0.9155622	-10273	-901	2.9
3.0	-7115	-788	0.9358288	-7562	-801	0.9331600	-7991	-809	0.9304103	-8433	-816	0.9275790	-8879	-828	0.9246654	-8425	-828	3.0
3.1	-6433	-726	0.9425504	-6829	-734	0.9402335	-7229	-741	0.9378425	-7632	-746	0.9353769	-8038	-732	0.9328361	-7849	-757	3.1
3.2	-5809	-664	0.9485891	-6108	-671	0.9465841	-6530	-676	0.9445115	-6895	-679	0.9423710	-7268	-686	0.9401619	-7041	-689	3.2
3.3	-5243	-607	0.9540110	-5504	-611	0.9522817	-5891	-614	0.9504910	-6225	-618	0.9486384	-6539	-621	0.9467236	-6365	-625	3.3
3.4	-4728	-557	0.9588765	-5013	-558	0.9573902	-5312	-560	0.9558480	-5610	-562	0.9542498	-5913	-564	0.9525953	-5721	-565	3.4
3.5	-4261	-509	0.9632402	-4539	-508	0.9619675	-4784	-507	0.9606440	-5051	-507	0.9592698	-5324	-508	0.9578449	-5092	-510	3.5
3.6	-3836	-466	0.9671519	-4068	-462	0.9660664	-4304	-460	0.9649349	-4344	-459	0.9637575	-4789	-468	0.9625343	-4537	-459	3.6
3.7	-3454	-427	0.9706568	-3659	-422	0.9697349	-3868	-417	0.9687714	-4084	-414	0.9677663	-4301	-413	0.9667200	-4324	-412	3.7
3.8	-3107	-392	0.9737958	-3290	-384	0.9730166	-3477	-379	0.9721995	-3666	-376	0.9713450	-3861	-372	0.9704533	-4059	-370	3.8
3.9	-2792	-360	0.9766058	-2964	-351	0.9759506	-3110	-344	0.9752610	-3383	-338	0.9745376	-3461	-335	0.9737807	-3837	-332	3.9
4.0	-2510	-332	0.9791204	-2654	-321	0.9785727	-2800	-313	0.9779937	-2949	-306	0.9773841	-3101	-302	0.9767444	-3529	-298	4.0
4.1	-2254	-306	0.9813696	-2379	-294	0.9809148	-2508	-285	0.9804315	-2640	-277	0.9799205	-2775	-272	0.9793823	-3212	-268	4.1
4.2	-2025	-282	0.9833809	-2135	-271	0.9830061	-2248	-260	0.9826053	-2354	-252	0.9821794	-2485	-245	0.9817290	-2914	-240	4.2
4.3	-1816	-262	0.9851787	-1914	-248	0.9848726	-2013	-237	0.9845427	-2114	-229	0.9841901	-2219	-221	0.9838153	-2626	-216	4.3
4.4	-1629	-243	0.9867851	-1714	-228	0.9865378	-1801	-217	0.9862687	-1890	-208	0.9859789	-1981	-206	0.9856690	-2373	-194	4.4
4.5	-1462	-227	0.9882201	-1535	-211	0.9880229	-1611	-200	0.9878057	-1688	-190	0.9875696	-1768	-181	0.9873154	-2151	-175	4.5
4.6	-1310	-212	0.9895016	-1374	-195	0.9893469	-1440	-184	0.9891739	-1569	-173	0.9889835	-1677	-165	0.9887767	-1948	-168	4.6
4.7	-1174	-197	0.9906457	-1230	-182	0.9905269	-1287	-169	0.9903912	-1345	-158	0.9902397	-1406	-156	0.9900732	-1748	-143	4.7
4.8	-1051	-184	0.9916668	-1101	-170	0.9915782	-1150	-156	0.9914740	-1200	-146	0.9913553	-1252	-137	0.9912229	-1550	-130	4.8
4.9	-942	-174	0.9925778	-993	-167	0.9925145	-1028	-144	0.9924368	-1071	-134	0.9923457	-1116	-125	0.9922421	-1363	-118	4.9
5.0	-844	-164	0.9933905	-879	-146	0.9933482	-919	-134	0.9932925	-953	-123	0.9932245	-988	-115	0.9931450	-1181	-107	5.0
5.1	-764	-154	0.9941153	-785	-137	0.9940903	-817	-124	0.9940529	-810	-114	0.9940041	-885	-105	0.9939448	-1019	-93	5.1
5.2	-695	-144	0.9947616	-703	-127	0.9947507	-723	-115	0.9947283	-756	-106	0.9946954	-788	-97	0.9946528	-814	-90	5.2
5.3	-636	-138	0.9953376	-636	-116	0.9953383	-650	-109	0.9953281	-673	-97	0.9953082	-701	-89	0.9952794	-628	-82	5.3
5.4	-580	-128	0.9958510	-580	-113	0.9958608	-573	-100	0.9958606	-600	-92	0.9958512	-619	-81	0.9958337	-441	-76	5.4
5.5	-528	-120	0.9963085	-520	-107	0.9963255	-516	-94	0.9963331	-532	-84	0.9963323	-550	-76	0.9963239	-368	-69	5.5
5.6	-480	-114	0.9967160	-465	-100	0.9967386	-462	-88	0.9967524	-474	-78	0.9967584	-474	-72	0.9967573	-306	-63	5.6
5.7	-436	-108	0.9970790	-416	-94	0.9971058	-412	-83	0.9971243	-421	-72	0.9971356	-434	-66	0.9971403	-246	-59	5.7
5.8	-396	-102	0.9974022	-374	-89	0.9974320	-365	-77	0.9974541	-374	-68	0.9974694	-384	-61	0.9974787	-196	-54	5.8
5.9	-360	-97	0.9976900	-336	-83	0.9977219	-328	-73	0.9977465	-332	-63	0.9977648	-340	-56	0.9977775	-150	-50	5.9
6.0	-326	-92	0.99															

$u$	$p = 0.0$			$p = 0.1$			$p = 0.2$			$p = 0.3$			$p = 0.4$			$p = 0.5$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$u$
6.0	.9975212	-249	-245	.9976304	-253	-194	.9977201	-253	-167	.9977941	-265	-131	.9978550	-269	-107	.9979052	6.0
6.1	.9977571	-223	-234	.9978633	-229	-186	.9979507	-232	-150	.9980231	-236	-123	.9980832	-241	-103	.9981330	6.1
6.2	.9979706	-204	-226	.9980733	-206	-179	.9981581	-209	-144	.9982285	-212	-116	.9982873	-217	-98	.9983363	6.2
6.3	.9981637	-184	-217	.9982627	-186	-172	.9983445	-187	-136	.9984127	-191	-112	.9984697	-194	-92	.9985175	6.3
6.4	.9983384	-165	-207	.9984335	-168	-164	.9985122	-168	-131	.9985778	-171	-105	.9986329	-174	-89	.9986792	6.4
6.5	.9984966	-152	-200	.9985875	-161	-155	.9986629	-152	-125	.9987258	-163	-100	.9987787	-153	-83	.9988233	6.5
6.6	.9986396	-135	-191	.9987264	-136	-148	.9987984	-137	-119	.9988585	-138	-95	.9989091	-139	-79	.9989518	6.6
6.7	.9987691	-124	-183	.9988517	-123	-141	.9989202	-123	-113	.9989774	-124	-90	.9990256	-124	-74	.9990664	6.7
6.8	.9988862	-111	-174	.9989647	-111	-135	.9990297	-111	-105	.9990839	-111	-84	.9991297	-110	-70	.9991685	6.8
6.9	.9989922	-101	-166	.9990666	-101	-129	.9991281	-100	-101	.9991795	-100	-81	.9992228	-98	-66	.9992595	6.9
7.0	.9990881	-91	-159	.9991584	-90	-122	.9992165	-89	-96	.9992650	-88	-76	.9993059	-88	-62	.9993406	7.0
7.1	.9991749	-83	-151	.9992413	-82	-117	.9992960	-80	-90	.9993417	-79	-72	.9993802	-79	-69	.9994129	7.1
7.2	.9992534	-74	-145	.9993160	-74	-111	.9993675	-73	-85	.9994105	-73	-69	.9994466	-71	-65	.9994773	7.2
7.3	.9993245	-69	-135	.9993833	-66	-104	.9994317	-65	-81	.9994720	-63	-64	.9995059	-63	-62	.9995346	7.3
7.4	.9993887	-60	-130	.9994440	-60	-99	.9994894	-58	-76	.9995272	-58	-61	.9995589	-56	-49	.9995857	7.4
7.5	.9994469	-54	-123	.9994988	-54	-94	.9995413	-53	-72	.9995766	-52	-67	.9996062	-50	-46	.9996313	7.5
7.6	.9994995	-49	-116	.9995482	-49	-90	.9995879	-47	-67	.9996209	-47	-64	.9996485	-45	-43	.9996718	7.6
7.7	.9995472	-46	-111	.9995927	-44	-84	.9996298	-43	-64	.9996605	-42	-60	.9996862	-40	-40	.9997079	7.7
7.8	.9995903	-41	-106	.9996328	-39	-76	.9996674	-39	-61	.9996960	-38	-46	.9997199	-36	-37	.9997401	7.8
7.9	.9996293	-35	-100	.9996690	-36	-74	.9997013	-36	-58	.9997279	-34	-45	.9997500	-32	-34	.9997687	7.9
8.0	.9996645	-35	-94	.9997016	-32	-71	.9997316	-33	-52	.9997564	-30	-43	.9997769	-29	-32	.9997942	8.0
8.1	.9996965	-32	-89	.9997310	-29	-66	.9997590	-28	-49	.9997819	-27	-40	.9998009	-26	-31	.9998169	8.1
8.2	.9997253	-29	-83	.9997575	-26	-62	.9997835	-25	-47	.9998047	-24	-36	.9998223	-23	-29	.9998371	8.2
8.3	.9997515	-26	-80	.9997814	-23	-69	.9998055	-22	-44	.9998252	-22	-34	.9998415	-20	-27	.9998551	8.3
8.4	.9997751	-24	-74	.9998030	-21	-66	.9998253	-20	-41	.9998435	-19	-32	.9998585	-17	-25	.9998711	8.4
8.5	.9997965	-22	-70	.9998224	-19	-62	.9998431	-16	-39	.9998599	-17	-29	.9998738	-16	-24	.9998853	8.5
8.6	.9998159	-20	-67	.9998399	-17	-48	.9998591	-16	-37	.9998746	-15	-27	.9998874	-15	-22	.9998980	8.6
8.7	.9998334	-17	-62	.9998557	-16	-45	.9998734	-14	-34	.9998878	-14	-26	.9998995	-14	-21	.9999093	8.7
8.8	.9998493	-15	-58	.9998699	-14	-42	.9998863	-13	-31	.9998996	-13	-25	.9999104	-13	-19	.9999193	8.8
8.9	.9998636	-13	-55	.9998828	-13	-40	.9998979	-12	-28	.9999101	-11	-23	.9999200	-11	-17	.9999282	8.9
9.0	.9998766	-11	-62	.9998943	-12	-37	.9999083	-10	-27	.9999196	-10	-22	.9999287	-10	-16	.9999362	9.0
9.1	.9998883	-10	-49	.9999048	-11	-35	.9999177	-10	-26	.9999280	-9	-20	.9999364	-9	-15	.9999432	9.1
9.2	.9998990	-10	-46	.9999142	-10	-33	.9999261	-9	-24	.9999356	-9	-19	.9999432	-8	-14	.9999495	9.2
9.3	.9999086	-9	-43	.9999226	-9	-30	.9999336	-7	-23	.9999423	-8	-17	.9999494	-7	-14	.9999551	9.3
9.4	.9999173	-8	-40	.9999303	-6	-28	.9999404	-7	-21	.9999484	-7	-16	.9999549	-7	-13	.9999601	9.4
9.5	.9999251	-7	-37	.9999371	-7	-27	.9999465	-6	-20	.9999538	-6	-14	.9999597	-6	-12	.9999645	9.5
9.6	.9999323	-6	-35	.9999434	-6	-25	.9999519	-6	-18	.9999587	-6	-13	.9999641	-6	-11	.9999685	9.6
9.7	.9999387	-6	-33	.9999489	-6	-23	.9999568	-6	-17	.9999630	-6	-12	.9999680	-6	-10	.9999720	9.7
9.8	.9999445	-4	-31	.9999540	-6	-21	.9999612	-6	-16	.9999669	-4	-11	.9999714	-4	-9	.9999751	9.8
9.9	.9999498	-4	-29	.9999585	-4	-20	.9999652	-4	-15	.9999704	-4	-10	.9999745		-8	.9999778	9.9
10.0	.9999546	-4	-27	.9999626	-4	-19	.9999687	-4	-13	.9999735	-4	-10	.9999773		-8	.9999803	10.0
10.1	.9999589	-4	-25	.9999663	-4	-18	.9999719	-4	-13	.9999763	-4	-9	.9999797		-6	.9999825	10.1
10.2	.9999628		-23	.9999696		-16	.9999748		-12	.9999788		-9	.9999820		-6	.9999844	10.2
10.3	.9999664		-22	.9999726		-14	.9999774		-12	.9999810		-8	.9999839		-6	.9999862	10.3
10.4	.9999696		-21	.9999753		-13	.9999797		-11	.9999830		-7	.9999857		-6	.9999877	10.4
10.5	.9999725		-20	.9999778		-12	.9999818		-10	.9999848		-6	.9999872		-5	.9999891	10.5
10.6	.9999751		-18	.9999800		-11	.9999836		-9	.9999864		-6	.9999886		-4	.9999903	10.6
10.7	.9999775		-17	.9999820		-10	.9999853		-8	.9999879		-6	.9999898		-4	.9999914	10.7
10.8	.9999796		-16	.9999837		-9	.9999868		-8	.9999892		-6	.9999909			.9999923	10.8
10.9	.9999815		-14	.9999853		-9	.9999882		-7	.9999903		-6	.9999919			.9999932	10.9
11.0	.9999833		-14	.9999868		-8	.9999894		-6	.9999913		-4	.9999928			.9999940	11.0
11.1	.9999849		-13	.9999881		-6	.9999904		-6	.9999922		-4	.9999936			.9999946	11.1
11.2	.9999863		-11	.9999893		-7	.9999914		-6	.9999930		-6	.9999943			.9999952	11.2
11.3	.9999876		-11	.9999903		-6	.9999923		-5	.9999938		-6	.9999949			.9999958	11.3
11.4	.9999888		-10	.9999913		-6	.9999931		-4	.9999945		-6	.9999955			.9999963	11.4
11.5	.9999898		-9	.9999921		-6	.9999938		-6	.9999950		-6	.9999960			.9999967	11.5
11.6	.9999908		-8	.9999929		-4	.9999944		-6	.9999955		-6	.9999964			.9999970	11.6
11.7	.9999917		-8	.9999936		-4	.9999950		-6	.9999960		-6	.9999968			.9999974	11.7
11.8	.9999925		-7	.9999943		-4	.9999955		-6	.9999964		-6	.9999971			.9999977	11.8
11.9	.9999932		-7	.9999948		-4	.9999960		-6	.9999968		-6	.9999974			.9999979	11.9
12.0	.9999939		-7	.9999953		-4	.9999964		-6	.9999972		-6	.9999977			.9999981	12.0



u	p = 0.5		p = 0.6		p = 0.7		p = 0.8		p = 0.9		p = 1.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
6.0	-278	-92	.9979462	-282	-79	.9979793	-290	-67	.9980057	-295	-59	.9980262	-303	-53	6.0
6.1	-245	-86	.9981742	-251	-76	.9982080	-257	-64	.9982354	-262	-55	.9982573	-269	-49	6.1
6.2	-219	-81	.9983771	-224	-70	.9984110	-229	-60	.9984389	-232	-51	.9984617	-233	-46	6.2
6.3	-195	-77	.9985576	-199	-65	.9985912	-202	-56	.9986192	-206	-49	.9986423	-210	-43	6.3
6.4	-175	-71	.9987182	-177	-61	.9987512	-179	-54	.9987788	-183	-44	.9988020	-185	-40	6.4
6.5	-156	-66	.9988611	-158	-59	.9988931	-160	-49	.9989202	-163	-41	.9989431	-165	-37	6.5
6.6	-139	-63	.9989881	-140	-54	.9990190	-142	-46	.9990453	-145	-39	.9990677	-147	-35	6.6
6.7	-124	-61	.9991011	-125	-50	.9991308	-127	-44	.9991561	-129	-37	.9991778	-131	-33	6.7
6.8	-111	-57	.9992016	-112	-48	.9992299	-113	-42	.9992541	-114	-35	.9992749	-116	-29	6.8
6.9	-99	-53	.9992909	-100	-45	.9993178	-100	-38	.9993409	-101	-33	.9993607	-102	-26	6.9
7.0	-88	-50	.9993703	-89	-43	.9993957	-88	-36	.9994176	-89	-31	.9994365	-90	-25	7.0
7.1	-79	-47	.9994408	-78	-39	.9994648	-79	-34	.9994854	-78	-27	.9995033	-80	-24	7.1
7.2	-70	-45	.9995035	-69	-37	.9995260	-69	-31	.9995455	-69	-25	.9995623	-70	-22	7.2
7.3	-62	-42	.9995592	-62	-35	.9995803	-62	-29	.9995985	-60	-24	.9996143	-61	-21	7.3
7.4	-55	-38	.9996087	-56	-33	.9996284	-55	-27	.9996454	-54	-22	.9996602	-54	-19	7.4
7.5	-49	-36	.9996526	-50	-30	.9996710	-49	-23	.9996869	-49	-21	.9997007	-49	-18	7.5
7.6	-44	-34	.9996917	-44	-25	.9997088	-43	-23	.9997236	-43	-20	.9997364	-42	-16	7.6
7.7	-39	-32	.9997264	-39	-26	.9997423	-38	-22	.9997560	-38	-19	.9997678	-37	-14	7.7
7.8	-35	-31	.9997572	-35	-24	.9997719	-34	-20	.9997846	-34	-17	.9997956	-33	-14	7.8
7.9	-31	-29	.9997845	-31	-22	.9997981	-29	-18	.9998099	-30	-15	.9998200	-29	-13	7.9
8.0	-28	-27	.9998088	-27	-20	.9998214	-26	-18	.9998322	-26	-14	.9998416	-27	-12	8.0
8.1	-25	-25	.9998304	-25	-19	.9998420	-23	-17	.9998519	-23	-13	.9998605	-24	-11	8.1
8.2	-22	-24	.9998495	-22	-18	.9998602	-21	-16	.9998693	-20	-12	.9998772	-22	-10	8.2
8.3	-20	-22	.9998665	-20	-17	.9998763	-19	-15	.9998847	-18	-11	.9998920	-20	-9	8.3
8.4	-18	-21	.9998816	-17	-16	.9998906	-17	-14	.9998983	-16	-10	.9999049	-17	-8	8.4
8.5	-16	-19	.9998950	-15	-15	.9999032	-15	-12	.9999103	-14	-10	.9999164	-15	-8	8.5
8.6	-14	-17	.9999069	-13	-14	.9999144	-13	-11	.9999209	-13	-9	.9999264	-13	-7	8.6
8.7	-13	-16	.9999174	-11	-13	.9999243	-11	-10	.9999302	-11	-9	.9999353	-11	-7	8.7
8.8	-11	-15	.9999268	-10	-12	.9999331	-10	-9	.9999385	-10	-8	.9999431	-10	-6	8.8
8.9	-10	-13	.9999351	-9	-12	.9999408	-8	-8	.9999458	-9	-8	.9999499	-9	-6	8.9
9.0	-9	-13	.9999424	-8	-11	.9999477	-8	-8	.9999522	-8	-7	.9999560	-8	-6	9.0
9.1	-7	-12	.9999489	-7	-10	.9999538	-7	-7	.9999578	-7	-6	.9999613	-7	-5	9.1
9.2	-7	-11	.9999548	-6	-10	.9999591	-6	-7	.9999628	-7	-5	.9999660	-6	-4	9.2
9.3	-6	-10	.9999599	-6	-9	.9999639	-6	-6	.9999672	-5	-6	.9999701	-6	-4	9.3
9.4	-5	-9	.9999644	-5	-8	.9999681	-5	-6	.9999711	-5	-4	.9999737	-4	-4	9.4
9.5	-4	-9	.9999685	-5	-7	.9999718	-4	-5	.9999745	-4	-4	.9999769	-4		9.5
9.6	-4	-8	.9999721	-4	-6	.9999751	-4	-5	.9999776	-4		.9999797	-4		9.6
9.7	-4	-3	.9999752	-4	-6	.9999780		-4	.9999802			.9999821			9.7
9.8	-4	-7	.9999781	-4	-5	.9999805		-4	.9999826			.9999843			9.8
9.9		-6	.9999806		-5	.9999828			.9999847			.9999862			9.9
10.0		-6	.9999828		-4	.9999848			.9999865			.9999879			10.0
10.1		-5	.9999847		-4	.9999866			.9999881			.9999894			10.1
10.2		-4	.9999865			.9999881			.9999895			.9999907			10.2
10.3		-4	.9999880			.9999895			.9999908			.9999918			10.3
10.4			.9999894			.9999907			.9999919			.9999928			10.4
10.5			.9999906			.9999918			.9999928			.9999937			10.5
10.6			.9999916			.9999928			.9999937			.9999944			10.6
10.7			.9999926			.9999936			.9999944			.9999951			10.7
10.8			.9999935			.9999944			.9999951			.9999957			10.8
10.9			.9999942			.9999950			.9999957			.9999962			10.9
11.0			.9999949			.9999956			.9999962			.9999967			11.0
11.1			.9999955			.9999961			.9999967			.9999971			11.1
11.2			.9999960			.9999966			.9999971			.9999975			11.2
11.3			.9999965			.9999970			.9999974			.9999978			11.3
11.4			.9999969			.9999973			.9999977			.9999981			11.4
11.5			.9999972			.9999976			.9999980			.9999983			11.5
11.6			.9999975			.9999979			.9999983			.9999985			11.6
11.7			.9999978			.9999982			.9999985			.9999987			11.7
11.8			.9999981			.9999984			.9999987			.9999989			11.8
11.9			.9999983			.9999986			.9999989			.9999990			11.9
12.0			.9999985			.9999988			.9999990			.9999991			12.0

$u$	$p = 0.0$			$p = 0.1$			$p = 0.2$			$p = 0.3$			$p = 0.4$			$p = 0.5$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$u$
12.0	.9999939		-7	.9999953			.9999964			.9999972			.9999977			.9999981	12.0
12.1	.9999944		-7	.9999958			.9999968			.9999975			.9999980			.9999983	12.1
12.2	.9999950		-6	.9999962			.9999971			.9999977			.9999982			.9999985	12.2
12.3	.9999954		-6	.9999966			.9999974			.9999980			.9999984			.9999987	12.3
12.4	.9999959		-5	.9999969			.9999977			.9999982			.9999986			.9999989	12.4
12.5	.9999963		-5	.9999972			.9999979			.9999984			.9999987			.9999990	12.5
12.6	.9999966		-4	.9999975			.9999981			.9999985			.9999989			.9999991	12.6
12.7	.9999969		-4	.9999978			.9999983			.9999987			.9999990			.9999992	12.7
12.8	.9999972			.9999980			.9999985			.9999988			.9999991			.9999993	12.8
12.9	.9999975			.9999982			.9999986			.9999990			.9999992			.9999994	12.9
13.0	.9999977			.9999984			.9999988			.9999991			.9999993			.9999994	13.0
13.1	.9999980			.9999985			.9999989			.9999992			.9999994			.9999995	13.1
13.2	.9999981			.9999987			.9999990			.9999993			.9999994			.9999996	13.2
13.3	.9999983			.9999988			.9999991			.9999993			.9999995			.9999996	13.3
13.4	.9999985			.9999989			.9999992			.9999994			.9999996			.9999997	13.4
13.5	.9999986			.9999990			.9999993			.9999995			.9999996			.9999997	13.5
13.6	.9999988			.9999991			.9999994			.9999995			.9999996			.9999997	13.6
13.7	.9999989			.9999992			.9999994			.9999996			.9999997			.9999998	13.7
13.8	.9999990			.9999993			.9999995			.9999996			.9999997			.9999998	13.8
13.9	.9999991			.9999994			.9999995			.9999997			.9999997			.9999998	13.9
14.0	.9999992			.9999994			.9999996			.9999997			.9999998			.9999998	14.0
14.1	.9999992			.9999995			.9999996			.9999997			.9999998			.9999999	14.1
14.2	.9999993			.9999995			.9999997			.9999998			.9999998			.9999999	14.2
14.3	.9999994			.9999996			.9999997			.9999998			.9999998			.9999999	14.3
14.4	.9999994			.9999996			.9999997			.9999998			.9999999			.9999999	14.4
14.5	.9999995			.9999997			.9999998			.9999998			.9999999			.9999999	14.5
14.6	.9999995			.9999997			.9999998			.9999999			.9999999			.9999999	14.6
14.7	.9999996			.9999997			.9999998			.9999999			.9999999			.9999999	14.7
14.8	.9999996			.9999998			.9999998			.9999999			.9999999			.9999999	14.8
14.9	.9999997			.9999998			.9999999			.9999999			.9999999			.9999999	14.9
15.0	.9999997			.9999998			.9999999			.9999999			.9999999			1.0000000	15.0
15.1	.9999997			.9999998			.9999999			.9999999			.9999999			.9999999	
15.2	.9999997			.9999998			.9999999			.9999999			.9999999			.9999999	
15.3	.9999998			.9999999			.9999999			.9999999			.9999999			1.0000000	
15.4	.9999998			.9999999			.9999999			.9999999			.9999999				
15.5	.9999998			.9999999			.9999999			.9999999			.9999999				
15.6	.9999998			.9999999			.9999999			1.0000000			.9999999				
15.7	.9999998			.9999999			.9999999			.9999999			.9999999				
15.8	.9999999			.9999999			.9999999			.9999999			.9999999				
15.9	.9999999			.9999999			1.0000000			.9999999			.9999999				
16.0	.9999999			.9999999			.9999999			.9999999			.9999999				
16.1	.9999999			.9999999			.9999999			.9999999			.9999999				
16.2	.9999999			.9999999			.9999999			.9999999			.9999999				
16.3	.9999999			1.0000000			.9999999			.9999999			.9999999				
16.4	.9999999			.9999999			.9999999			.9999999			.9999999				
16.5	.9999999			.9999999			.9999999			.9999999			.9999999				
16.6	.9999999			.9999999			.9999999			.9999999			.9999999				
16.7	.9999999			.9999999			.9999999			.9999999			.9999999				
16.8	.9999999			.9999999			.9999999			.9999999			.9999999				
16.9	1.0000000			.9999999			.9999999			.9999999			.9999999				



u	p = 1.0		p = 1.1		p = 1.2		p = 1.3		p = 1.4		p = 1.5		u
	I(u, p)	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	$\frac{\delta_u^2}{\delta_u^4}$	I(u, p)	
0	0.000000	—	0.000000	—	0.000000	—	0.000000	—	0.000000	—	0.000000	—	0
1	0.0091054	+149898	0.0071448	+135241	0.0055988	+120738	0.0043816	+106837	0.0034247	+93817	0.0026733	+81412	1
2	0.0332006	+108779	0.0278137	+107638	0.0232714	+104831	0.0194469	+100765	0.0162311	+95781	0.0135309	+91434	2
3	0.0681737	+75897	0.0592464	+78550	0.0514271	+82272	0.0445877	+83359	0.0386136	+83294	0.0334023	+80288	3
4	0.1107365	+49798	0.0986641	+57275	0.0878100	+60821	0.0780644	+64249	0.0693255	+66989	0.0614995	+69129	4
5	0.1582791	+29260	0.1436543	+35663	0.1302450	+41318	0.1179660	+46224	0.1067363	+50394	0.0964792	+52726	5
6	0.2087477	+13276	0.1922108	+10401	0.1768118	+25083	0.1624900	+30292	0.1491865	+35006	0.1368437	+39617	6
7	0.2605438	+986	0.2427074	+6475	0.2258869	+2592	0.2100432	+2359	0.1951373	+2362	0.1811301	+2336	7
8	0.3124395	+3706	0.2938515	+2825	0.2761360	+1039	0.2592713	+5668	0.2432347	+1039	0.2282007	+566	8
9	0.3635078	+10118	0.3446366	+11250	0.3264890	+7345	0.3090562	+3425	0.2932383	+2012	0.2762941	+6937	9
1.0	0.4130643	-20012	0.3942962	-16936	0.3761075	-13747	0.3584086	-10477	0.3414689	-7158	0.3250164	-5772	1.0
1.1	0.4606196	-23352	0.4422622	-20985	0.4243513	-15477	0.4068933	-12542	0.3898939	-13109	0.3733575	-10373	1.1
1.2	0.5058397	-25463	0.4881294	-23733	0.4707474	-18280	0.4537038	-17776	0.4370080	-17607	0.4206685	-16707	1.2
1.3	0.5485135	-26612	0.5316243	-25404	0.5149615	-24036	0.4985367	-22516	0.4823614	-20869	0.4664465	-19274	1.3
1.4	0.5885261	-27015	0.5725788	-26225	0.5567720	-25292	0.5411180	-24291	0.5256288	-22911	0.5103160	-21764	1.4
1.5	0.6258372	-26848	0.6109082	-26447	0.5960493	-25906	0.5812722	-25230	0.5665888	-24426	0.5520106	-23522	1.5
1.6	0.6604635	-26255	0.6465929	-26146	0.6327360	-25743	0.6189034	-25011	0.6051062	-24509	0.5913554	-23810	1.6
1.7	0.6924643	-25354	0.6796360	-25470	0.6668316	-25478	0.6539790	-25381	0.6411156	-25179	0.6282510	-24732	1.7
1.8	0.7219297	-24230	0.7101861	-24322	0.6983790	-24721	0.6865165	-24827	0.6746071	-24844	0.6626592	-24838	1.8
1.9	0.7489721	-22965	0.7382570	-23381	0.7274545	-23732	0.7165713	-23989	0.7056142	-24176	0.6945905	-24666	1.9
2.0	0.7737180	-21811	0.7639898	-22117	0.7541578	-22562	0.7442272	-22943	0.7342037	-23261	0.7240933	-23693	2.0
2.1	0.7963028	-20215	0.7875109	-20750	0.7786049	-21296	0.7695888	-21761	0.7604671	-22173	0.7512447	-22707	2.1
2.2	0.8168661	-18810	0.8089540	-19419	0.8009224	-19971	0.7927743	-20490	0.7845132	-20968	0.7761428	-21493	2.2
2.3	0.8355484	-17425	0.8284561	-18038	0.8212428	-18629	0.8139108	-19174	0.8064625	-19663	0.7989007	-20338	2.3
2.4	0.8524882	-16079	0.8461544	-16690	0.8397011	-17279	0.8331299	-17847	0.8264423	-18388	0.8196405	-19142	2.4
2.5	0.8678201	-14784	0.8621837	-15383	0.8564315	-15967	0.8505643	-16532	0.8445833	-17090	0.8384898	-17825	2.5
2.6	0.8816735	-13552	0.8766747	-14128	0.8715652	-14694	0.8663455	-15250	0.8610163	-15794	0.8555783	-16588	2.6
2.7	0.8941719	-12385	0.8897529	-12936	0.8852295	-13480	0.8806017	-14015	0.8758699	-14542	0.8710345	-15236	2.7
2.8	0.9054317	-11293	0.9015375	-11810	0.8975458	-12325	0.8934564	-12837	0.8892693	-13344	0.8849846	-13976	2.8
2.9	0.9155622	-10273	0.9121411	-10757	0.9086296	-11239	0.9050274	-11721	0.9013343	-12201	0.8975503	-12809	2.9
3.0	0.9246654	-9325	0.9216690	-9773	0.9185895	-10225	0.9154263	-10675	0.9121792	-11125	0.9088480	-11681	3.0
3.1	0.9328361	-8449	0.9302196	-8863	0.9275269	-9276	0.9247577	-9694	0.9219116	-10114	0.9189883	-10702	3.1
3.2	0.9401619	-7641	0.9378839	-8018	0.9355367	-8402	0.9331197	-8787	0.9306326	-9175	0.9280750	-9705	3.2
3.3	0.9467236	-6900	0.9447464	-7246	0.9427063	-7593	0.9406390	-7945	0.9384361	-8301	0.9362053	-8769	3.3
3.4	0.9525953	-6221	0.9508843	-6533	0.9491166	-6880	0.9472918	-7172	0.9454095	-7466	0.9434695	-7864	3.4
3.5	0.9578449	-5602	0.9563690	-5883	0.9548419	-6170	0.9532634	-6460	0.9516333	-6756	0.9499512	-7150	3.5
3.6	0.9625343	-5037	0.9612652	-5290	0.9599502	-5548	0.9585890	-5810	0.9571815	-6078	0.9557273	-6466	3.6
3.7	0.9667200	-4524	0.9656325	-4762	0.9645037	-4983	0.9633336	-5219	0.9621219	-5457	0.9608686	-5847	3.7
3.8	0.9704533	-4069	0.9695246	-4261	0.9685589	-4467	0.9675563	-4678	0.9665166	-4894	0.9654397	-5237	3.8
3.9	0.9737807	-3637	0.9729906	-3818	0.9721674	-4002	0.9713112	-4191	0.9704219	-4382	0.9694995	-4683	3.9
4.0	0.9767444	-3258	0.9760748	-3416	0.9753757	-3651	0.9746470	-3746	0.9738890	-3918	0.9731015	-4204	4.0
4.1	0.9793823	-2912	0.9788174	-3055	0.9782259	-3198	0.9776082	-3347	0.9769643	-3499	0.9762942	-3701	4.1
4.2	0.9817290	-2604	0.9812545	-2728	0.9807563	-2855	0.9802347	-2986	0.9796808	-3120	0.9791217	-3329	4.2
4.3	0.9838153	-2326	0.9834188	-2434	0.9830012	-2547	0.9825626	-2662	0.9821033	-2790	0.9816234	-3026	4.3
4.4	0.9856690	-2073	0.9853397	-2171	0.9849914	-2270	0.9846243	-2370	0.9842388	-2472	0.9838351	-2683	4.4
4.5	0.9873154	-1851	0.9870435	-1933	0.9867546	-2018	0.9864491	-2107	0.9861271	-2200	0.9857889	-2402	4.5
4.6	0.9887767	-1648	0.9885540	-1722	0.9883160	-1797	0.9880630	-1874	0.9877954	-1952	0.9875134	-2144	4.6
4.7	0.9900732	-1468	0.9898923	-1531	0.9896977	-1507	0.9894896	-1583	0.9892685	-1658	0.9890346	-1848	4.7
4.8	0.9912229	-1305	0.9910775	-1361	0.9909197	-1317	0.9907499	-1377	0.9905683	-1435	0.9903755	-1635	4.8
4.9	0.9922421	-1163	0.9921266	-1209	0.9920000	-1159	0.9918625	-1208	0.9917146	-1254	0.9915566	-1411	4.9
5.0	0.9931450	-1031	0.9930548	-1073	0.9929544	-1115	0.9928443	-1160	0.9927248	-1204	0.9925963	-1244	5.0
5.1	0.9939448	-911	0.9938757	-954	0.9937973	-999	0.9937101	-1026	0.9936146	-1065	0.9935110	-1101	5.1
5.2	0.9946528	-814	0.9946012	-848	0.9945413	-876	0.9944734	-909	0.9943979	-941	0.9943152	-972	5.2
5.3	0.9952794	-723	0.9952424	-750	0.9951977	-775	0.9951458	-802	0.9950871	-831	0.9950220	-859	5.3
5.4	0.9958337	-641	0.9958086	-662	0.9957766	-686	0.9957380	-708	0.9956932	-733	0.9956427	-758	5.4
5.5	0.9963239	-568	0.9963086	-588	0.9962869	-607	0.9962592	-626	0.9962260	-648	0.9961875	-671	5.5
5.6	0.9967573	-504	0.9967498	-519	0.9967365	-537	0.9967178	-552	0.9966940	-569	0.9966655	-588	5.6
5.7	0.9971403	-446	0.9971391	-459	0.9971326	-474	0.9971212	-488	0.9971051	-503	0.9970847	-518	5.7
5.8	0.9974787	-396	0.9974825	-407	0.9974814	-418	0.9974757	-429	0.9974659	-442	0.9974522	-457	5.8
5.9	0.9977775	-350	0.9977852	-369	0.9977883	-386	0.9977873	-397	0.9977825	-409	0.9977741	-421	5.9
6.0	0.9980414	-309	0.9980520	-317	0.9980584	-325	0.9980610	-333	0.9980601	-342	0.9980560	-350	6.0

u	p = 1.5		p = 1.6		p = 1.7		p = 1.8		p = 1.9		p = 2.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
0.0			.0000000			.0000000			.0000000			.0000000			0.0			
0.1	+81643	+1623	.0020842	+70983	+1278	.0016230	+81247	+1096	.0012623	+52603	+790	.0009806	+44921	+620	.0007610	+38333	+466	0.1
0.2	+90188	+4360	.0112667	+84181	+3681	.0093707	+77939	+8193	.0077849	+71723	+2912	.0064603	+65609	+9196	.0053553	+59991	+1843	0.2
0.3	+82258	+9713	.0288623	+99420	+6300	.0249122	+77937	+5176	.0214798	+74344	+4535	.0185009	+71567	+3967	.0159187	+67918	+8465	0.3
0.4	+68825	+8265	.0544999	+98845	+7470	.0482474	+70136	+6742	.0426691	+69785	+6075	.0376982	+68883	+5466	.0332739	+67507	+4310	0.4
0.5	+63548	+8909	.0871220	+56620	+8313	.0785961	+68748	+7667	.0708369	+69276	+7061	.0637838	+61247	+6491	.0573798	+61714	+5961	0.5
0.6	+39215	+9652	.1254061	+42922	+8511	.1148196	+46136	+7992	.1050323	+48889	+7491	.0959941	+51079	+7012	.0876571	+42922	+8511	0.6
0.7	+26563	+8595	.1679824	+29924	+8210	.1556557	+39631	+7823	.1441116	+36978	+7448	.1333123	+39262	+7073	.1232208	+42584	+6714	0.7
0.8	+14188	+7894	.2135511	+18216	+7554	.1988549	+29206	+7300	.1868887	+25599	+7042	.1746267	+28920	+6782	.1630429	+31980	+6517	0.8
0.9	+1785	+6811	.2609414	+10355	+6659	.2425667	+11767	+6347	.2322257	+15219	+6384	.2188331	+15681	+6223	.2060630	+21774	+6055	0.9
1.0	-3812	+5787	.3091380	-472	+5999	.2938292	+2843	+5644	.2790846	+8108	+5577	.2648976	+8901	+5509	.2512605	+12408	+5410	1.0
1.1	+1632	-4617	.3572872	+1669	-13	.3418660	+1477	-12	.3265543	+1360	-13	.3118922	+1235	-11	.2976988	+1087	-10	1.1
1.2	-1330	+3636	.4046930	-12966	+3708	.3890882	-10530	+3765	.3738597	-8038	+3813	.3590124	-6511	+3550	.3445500	-2960	+3877	1.2
1.3	+1274	-9	.4508020	+1294	-10	.4354374	+1293	-11	.4203613	+1272	-12	.4055815	+1247	-12	.3911052	+1201	-11	1.3
1.4	-19085	+2704	.4951910	-17200	+2799	.4802645	-16221	+2853	.4655468	-13161	+2363	.4510475	-11031	+3035	.4367756	-8848	+3095	1.4
1.5	+1091	-15	.5375491	+1063	-8	.5232155	+1063	-8	.5090205	-2048	+1490	.4949745	-18706	+1589	.4810874	-17296	+1683	1.5
1.6	-24492	+672	.5776618	-23793	+661	.5640363	-22989	+786	.5504894	-22094	+890	.5370315	-21058	+999	.5236726	-19996	+1087	1.6
1.7	+612	-2	.6153952	+664	-2	.6025582	+713	-2	.5897499	+755	-3	.5769800	+796	-3	.5626582	+831	-3	1.7
1.8	-24874	+88	.6506818	-24688	+188	.6386838	-23963	+287	.6261964	-23655	+384	.6146611	-22674	+461	.6026543	-21895	+1076	1.8
1.9	+487	-295	.6835078	+587	-1	.6723739	+582	-1	.6611964	+631	-1	.6499831	+672	-2	.6387420	+710	+143	1.9
2.0	-24769	+879	.7139021	-24769	+879	.7036369	-23821	+678	.6933039	-23874	+609	.6829100	-23861	+541	.6724620	-23781	+472	2.0
2.1	+1915	-7	.7419265	+1915	-7	.7325178	+1915	-7	.7230240	+1915	-7	.7134508	+1915	-7	.7038039	+1915	-7	2.1
2.2	-22533	-958	.7676671	-22533	-958	.7590902	-22159	+968	.7504165	-22438	+923	.7416505	-22687	+876	.7327969	-22883	+827	2.2
2.3	+150	-1063	.7912284	+150	-1063	.7834487	+150	-1063	.7755652	+150	-1063	.7675815	+150	-1063	.7595011	+150	-1063	2.3
2.4	-2149	+2	.8127265	-2149	+2	.8057028	-2149	+2	.7985720	-2149	+2	.7913367	-2149	+2	.7839999	-2149	+2	2.4
2.5	-17698	-1109	.8322854	-17698	-1109	.8259717	-18685	+1075	.8195505	-19667	+1053	.8130240	-20507	+1034	.8063941	-20919	+1009	2.5
2.6	-16323	-1078	.8500325	-16323	-1078	.8443801	-17333	+1054	.8386223	-17814	+1039	.8327606	-18277	+1025	.8267964	-18721	+1008	2.6
2.7	-10661	-1030	.8660961	-10661	-1030	.8610552	-10661	-1030	.8559127	-16533	+1007	.8506695	-17024	+997	.8453266	-17489	+985	2.7
2.8	-13844	-973	.8806026	-13844	-973	.8761235	-14825	+968	.8715478	-15304	+961	.8668760	-15774	+954	.8621088	-16236	+949	2.8
2.9	-12880	-910	.8936753	-12880	-910	.8897093	-13624	+908	.8856525	-14089	+906	.8815051	-14548	+903	.8772674	-15090	+899	2.9
3.0	-11574	-842	.9054326	-11574	-842	.9019327	-12471	+845	.8983483	-12917	+845	.8946794	-13360	+844	.8909260	-13799	+843	3.0
3.1	-10336	-775	.9159875	-10336	-775	.9129090	-11380	+781	.9097524	-11802	+781	.9065177	-12223	+783	.9032047	-12643	+784	3.1
3.2	-9264	-707	.9254467	-9264	-707	.9224773	-10352	+716	.9199763	-10746	+717	.9171337	-11143	+720	.9142191	-11540	+722	3.2
3.3	-8661	-643	.9339102	-8661	-643	.9315504	-9385	+650	.9291256	-9757	+654	.9266354	-10127	+658	.9240795	-10498	+660	3.3
3.4	-7825	-581	.9414714	-7825	-581	.9394147	-8433	+588	.9372992	-8833	+592	.9351244	-9174	+596	.9328901	-9521	+600	3.4
3.5	-7056	-523	.9482167	-7056	-523	.9464297	-7667	+530	.9445895	-7977	+534	.9426960	-8293	+538	.9407486	-8609	+542	3.5
3.6	-6348	-469	.9542263	-6348	-469	.9526780	-6903	+476	.9510821	-7187	+480	.9494383	-7474	+483	.9477462	-7786	+487	3.6
3.7	-5702	-419	.9595734	-5702	-419	.9582360	-6204	+423	.9568560	-6490	+428	.9554332	-6792	+432	.9539672	-7097	+436	3.7
3.8	-5113	-374	.9643255	-5113	-374	.9631736	-5564	+379	.9619839	-5879	+382	.9607559	-6181	+385	.9594895	-6471	+388	3.8
3.9	-4578	-332	.9685439	-4578	-332	.9675548	-4982	+336	.9665321	-5190	+339	.9654755	-5493	+342	.9643847	-5801	+345	3.9
4.0	-4098	-295	.9722845	-4098	-295	.9714378	-4453	+298	.9705613	-4838	+300	.9696548	-5188	+303	.9687180	-5501	+305	4.0
4.1	-3662	-262	.9755980	-3662	-262	.9748755	-3978	+264	.9741267	-4140	+265	.9733513	-4499	+267	.9725492	-4883	+269	4.1
4.2	-3255	-232	.9785304	-3255	-232	.9779159	-3542	+233	.9772781	-3688	+234	.9766169	-3989	+236	.9759391	-4309	+237	4.2
4.3	-2900	-205	.9811230	-2900	-205	.9806021	-3150	+206	.9800607	-3281	+206	.9794986	-3413	+207	.9789159	-3651	+208	4.3
4.4	-2579	-182	.9834133	-2579	-182	.9829733	-2801	+181	.9825152	-2915	+181	.9820390	-3092	+182	.9815446	-3192	+183	4.4
4.5	-2293	-161	.9854346	-2293	-161	.9850644	-2485	+160	.9846782	-2585	+160	.9842762	-2699	+160	.9838581	-2785	+160	4.5
4.6	-2033	-142	.9872173	-2033	-142	.9869070	-2203	+140	.9865827	-2292	+140	.9862444	-2391	+140	.9858921	-2474	+140	4.6
4.7	-1803	-126	.9887882	-1803	-126	.9885293	-1961	+124	.9882580	-2027	+123	.9879745	-2107	+123	.9876787	-2188	+123	4.7
4.8	-1625	-112	.9901715	-1625	-112	.9899565	-1726	+109	.9897306	-1784	+108	.9894939	-1861	+108	.9892465	-1932	+107	4.8
4.9	-1414	-92	.9913887	-1414	-92	.9912111	-1526	+96	.9910238	-1582	+95	.9908272	-1643	+94	.9906211	-1705	+94	4.9
5.0	-1259	-85	.9924590	-1259	-85	.9923131	-1345	+85	.9921588	-1397	+83	.9919962	-1449	+83	.9918252	-1501	+82	5.0
5.1	-1105	-78	.9933996	-1105	-78	.9932806	-1189	+75	.9931541	-1232	+73	.9930203	-1276	+72	.9928792	-1322	+71	5.1
5.2	-974	-70	.9942256	-974	-70	.9941292	-1045	+66	.9940262	-1083	+65	.9939168	-1122	+64	.9938010	-1161	+62	5.2
5.3	-861	-62	.9949506	-861	-62	.9948733	-923	+58	.9947900	-1014	+61	.9947011	-1052	+60	.9946067	-1092	+55	5.3
5.4	-759	-56	.9955866	-759	-56	.9955251	-810	+52	.9954584	-938	+50	.9953868	-967	+49	.9953102	-995	+48	5.4
5.5	-668	-50	.9961441	-668	-50	.9960959	-713	+46	.9960430	-866	+45	.9959858	-896	+43	.9959242	-923	+42	5.5
5.6	-588	-45	.9966326	-588	-45	.9965954	-627	+41	.9965540	-794	+39	.9965088	-824	+38	.9964597	-851	+37	5.6
5.7	-517	-40	.9970604	-517	-40	.9970322	-549	+36	.9970004	-722	+35	.9969651	-751	+34	.9969264	-779	+34	5.7
5.8	-456	-36	.9974349	-456	-36	.9974141	-482	+33	.9973901	-650	+31	.9973630	-679	+30	.9973329	-707	+29	5.8
5.9	-400	-33	.9977625	-400	-33	.9977478	-428	+28	.9977302	-578	+28	.9977098	-607	+26	.9976867	-635	+25	5.9
6.0	-351	-30	.9980490	-351	-30	.9980392	-371	+26	.9980267	-506	+25	.9980119	-535	+23	.9979946	-563	+22	6.0

$u$	$p = 1.0$			$p = 1.1$			$p = 1.2$			$p = 1.3$			$p = 1.4$			$p = 1.5$	
	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$u$
6.0	.9980414	-.309	-.46	.9980520	-.817	-.42	.9980584	-.325	-.88	.9980610	-.333	-.35	.9980601	-.342	-.32	.9980560	6.0
6.1	.9982744	-.273	-.44	.9982871	-.230	-.38	.9982960	-.287	-.34	.9983014	-.295	-.82	.9983035	-.300	-.29	.9983028	6.1
6.2	.9984799	-.240	-.39	.9984942	-.248	-.35	.9985049	-.253	-.32	.9985123	-.259	-.29	.9985169	-.266	-.26	.9985188	6.2
6.3	.9986613	-.212	-.37	.9986765	-.219	-.33	.9986885	-.223	-.29	.9986975	-.227	-.27	.9987037	-.231	-.24	.9987076	6.3
6.4	.9988212	-.188	-.34	.9988371	-.194	-.31	.9988498	-.195	-.27	.9988598	-.199	-.24	.9988674	-.204	-.22	.9988728	6.4
6.5	.9989623	-.168	-.31	.9989783	-.171	-.28	.9989916	-.172	-.25	.9990023	-.175	-.22	.9990107	-.179	-.20	.9990171	6.5
6.6	.9990866	-.147	-.28	.9991026	-.150	-.26	.9991160	-.151	-.23	.9991271	-.154	-.20	.9991361	-.157	-.18	.9991432	6.6
6.7	.9991962	-.131	-.26	.9992119	-.130	-.24	.9992253	-.133	-.21	.9992365	-.135	-.19	.9992458	-.138	-.17	.9992533	6.7
6.8	.9992928	-.115	-.25	.9993082	-.115	-.22	.9993212	-.117	-.20	.9993324	-.119	-.18	.9993417	-.120	-.16	.9993435	6.8
6.9	.9993779	-.101	-.24	.9993927	-.102	-.20	.9994054	-.103	-.18	.9994163	-.104	-.16	.9994256	-.106	-.14	.9994334	6.9
7.0	.9994528	-.89	-.22	.9994670	-.90	-.19	.9994792	-.90	-.17	.9994898	-.91	-.15	.9994989	-.93	-.13	.9995067	7.0
7.1	.9995188	-.79	-.20	.9995323	-.79	-.18	.9995440	-.79	-.15	.9995542	-.80	-.14	.9995629	-.80	-.12	.9995705	7.1
7.2	.9995769	-.69	-.18	.9995897	-.70	-.16	.9996008	-.70	-.14	.9996105	-.70	-.13	.9996189	-.71	-.11	.9996262	7.2
7.3	.9996281	-.61	-.17	.9996401	-.61	-.15	.9996506	-.61	-.13	.9996598	-.62	-.11	.9996678	-.63	-.10	.9996748	7.3
7.4	.9996731	-.54	-.16	.9996844	-.53	-.14	.9996942	-.53	-.12	.9997029	-.54	-.10	.9997104	-.55	-.9	.9997171	7.4
7.5	.9997127	-.47	-.15	.9997232	-.46	-.13	.9997325	-.46	-.11	.9997406	-.48	-.10	.9997477	-.48	-.9	.9997540	7.5
7.6	.9997476	-.41	-.14	.9997574	-.41	-.12	.9997660	-.40	-.10	.9997735	-.42	-.9	.9997802	-.40	-.5	.9997861	7.6
7.7	.9997782	-.36	-.13	.9997873	-.36	-.11	.9997953	-.36	-.9	.9998023	-.37	-.8	.9998085	-.35	-.7	.9998140	7.7
7.8	.9998052	-.33	-.12	.9998136	-.33	-.10	.9998210	-.32	-.8	.9998275	-.32	-.8	.9998333	-.31	-.7	.9998384	7.8
7.9	.9998289	-.29	-.12	.9998366	-.29	-.9	.9998435	-.26	-.6	.9998495	-.28	-.7	.9998548	-.27	-.6	.9998595	7.9
8.0	.9998497	-.25	-.11	.9998569	-.26	-.6	.9998632	-.24	-.7	.9998687	-.24	-.6	.9998736	-.24	-.5	.9998780	8.0
8.1	.9998680	-.22	-.10	.9998746	-.22	-.8	.9998804	-.21	-.6	.9998855	-.21	-.5	.9998900	-.21	-.5	.9998940	8.1
8.2	.9998841	-.19	-.9	.9998902	-.20	-.7	.9998955	-.19	-.6	.9999002	-.19	-.5	.9999043	-.19	-.5	.9999080	8.2
8.3	.9998983	-.17	-.8	.9999038	-.17	-.6	.9999087	-.17	-.5	.9999130	-.17	-.4	.9999167	-.17	-.4	.9999201	8.3
8.4	.9999107	-.15	-.7	.9999158	-.15	-.6	.9999202	-.15	-.5	.9999241	-.15	-.4	.9999276	-.15	-.4	.9999306	8.4
8.5	.9999216	-.13	-.7	.9999263	-.14	-.5	.9999303	-.13	-.4	.9999339	-.13	-.4	.9999370	-.12	-.3	.9999398	8.5
8.6	.9999312	-.11	-.6	.9999354	-.12	-.5	.9999391	-.11	-.4	.9999424	-.11	-.3	.9999452	-.10	-.2	.9999478	8.6
8.7	.9999397	-.9	-.6	.9999435	-.11	-.4	.9999468	-.10	-.4	.9999498	-.10	-.3	.9999524	-.9	-.1	.9999547	8.7
8.8	.9999471	-.9	-.5	.9999505	-.9	-.4	.9999535	-.9	-.3	.9999562	-.9	-.2	.9999586	-.8	-.1	.9999607	8.8
8.9	.9999536	-.6	-.5	.9999567	-.8	-.4	.9999595	-.8	-.3	.9999619	-.8	-.2	.9999640	-.7	-.1	.9999659	8.9
9.0	.9999593	-.7	-.4	.9999621	-.7	-.3	.9999646	-.7	-.2	.9999668	-.6	-.1	.9999687	-.6	-.1	.9999704	9.0
9.1	.9999643	-.6	-.4	.9999669	-.6	-.3	.9999691	-.6	-.2	.9999711	-.6	-.1	.9999728	-.5	-.1	.9999744	9.1
9.2	.9999687	-.6	-.4	.9999710	-.6	-.3	.9999730	-.5	-.2	.9999748	-.5	-.1	.9999764	-.5	-.1	.9999778	9.2
9.3	.9999725	-.5	-.3	.9999746	-.4	-.3	.9999764	-.4	-.2	.9999781	-.4	-.1	.9999794	-.4	-.1	.9999807	9.3
9.4	.9999759	-.4	-.3	.9999778	-.4	-.2	.9999794	-.4	-.2	.9999809	-.4	-.1	.9999821	-.4	-.1	.9999833	9.4
9.5	.9999789	-.4	-.2	.9999806	-.4	-.2	.9999821	-.4	-.2	.9999834	-.4	-.1	.9999845	-.4	-.1	.9999855	9.5
9.6	.9999815	-.3	-.2	.9999830	-.3	-.2	.9999844	-.3	-.1	.9999856	-.3	-.1	.9999865	-.3	-.1	.9999874	9.6
9.7	.9999838	-.3	-.2	.9999852	-.3	-.2	.9999863	-.3	-.1	.9999874	-.3	-.1	.9999883	-.3	-.1	.9999891	9.7
9.8	.9999858	-.2	-.2	.9999870	-.3	-.2	.9999881	-.3	-.1	.9999890	-.3	-.1	.9999898	-.3	-.1	.9999906	9.8
9.9	.9999876	-.2	-.1	.9999886	-.3	-.2	.9999896	-.3	-.1	.9999904	-.3	-.1	.9999912	-.3	-.1	.9999919	9.9
10.0	.9999891	-.2	-.1	.9999901	-.3	-.2	.9999909	-.3	-.1	.9999917	-.3	-.1	.9999924	-.3	-.1	.9999929	10.0
10.1	.9999904	-.2	-.1	.9999913	-.3	-.2	.9999921	-.3	-.1	.9999928	-.3	-.1	.9999934	-.3	-.1	.9999939	10.1
10.2	.9999916	-.2	-.1	.9999924	-.3	-.2	.9999931	-.3	-.1	.9999937	-.3	-.1	.9999942	-.3	-.1	.9999947	10.2
10.3	.9999927	-.2	-.1	.9999934	-.3	-.2	.9999940	-.3	-.1	.9999946	-.3	-.1	.9999950	-.3	-.1	.9999954	10.3
10.4	.9999936	-.2	-.1	.9999942	-.3	-.2	.9999948	-.3	-.1	.9999953	-.3	-.1	.9999957	-.3	-.1	.9999960	10.4
10.5	.9999944	-.2	-.1	.9999950	-.3	-.2	.9999954	-.3	-.1	.9999959	-.3	-.1	.9999962	-.3	-.1	.9999966	10.5
10.6	.9999951	-.2	-.1	.9999956	-.3	-.2	.9999960	-.3	-.1	.9999964	-.3	-.1	.9999967	-.3	-.1	.9999970	10.6
10.7	.9999957	-.2	-.1	.9999962	-.3	-.2	.9999965	-.3	-.1	.9999969	-.3	-.1	.9999972	-.3	-.1	.9999974	10.7
10.8	.9999962	-.2	-.1	.9999966	-.3	-.2	.9999970	-.3	-.1	.9999973	-.3	-.1	.9999976	-.3	-.1	.9999978	10.8
10.9	.9999967	-.2	-.1	.9999970	-.3	-.2	.9999974	-.3	-.1	.9999977	-.3	-.1	.9999979	-.3	-.1	.9999981	10.9
11.0	.9999971	-.2	-.1	.9999974	-.3	-.2	.9999977	-.3	-.1	.9999980	-.3	-.1	.9999982	-.3	-.1	.9999983	11.0
11.1	.9999975	-.2	-.1	.9999977	-.3	-.2	.9999980	-.3	-.1	.9999982	-.3	-.1	.9999984	-.3	-.1	.9999986	11.1
11.2	.9999978	-.2	-.1	.9999980	-.3	-.2	.9999983	-.3	-.1	.9999984	-.3	-.1	.9999986	-.3	-.1	.9999988	11.2
11.3	.9999981	-.2	-.1	.9999983	-.3	-.2	.9999985	-.3	-.1	.9999986	-.3	-.1	.9999988	-.3	-.1	.9999989	11.3
11.4	.9999983	-.2	-.1	.9999985	-.3	-.2	.9999987	-.3	-.1	.9999988	-.3	-.1	.9999990	-.3	-.1	.9999991	11.4
11.5	.9999985	-.2	-.1	.9999987	-.3	-.2	.9999989	-.3	-.1	.9999990	-.3	-.1	.9999991	-.3	-.1	.9999992	11.5
11.6	.9999987	-.2	-.1	.9999989	-.3	-.2	.9999990	-.3	-.1	.9999991	-.3	-.1	.9999992	-.3	-.1	.9999993	11.6
11.7	.9999989	-.2	-.1	.9999990	-.3	-.2	.9999991	-.3	-.1	.9999992	-.3	-.1	.9999993	-.3	-.1	.9999994	11.7
11.8	.9999990	-.2	-.1	.9999991	-.3	-.2	.9999992	-.3	-.1	.9999993	-.3	-.1	.9999994	-.3	-.1	.9999995	11.8
11.9	.9999991	-.2	-.1	.9999992	-.3	-.2	.9999993	-.3	-.1	.9999994	-.3	-.1	.9999995	-.3	-.1	.9999996	11.9
12.0	.9999992	-.2	-.1	.9999993	-.3	-.2	.9999994	-.3	-.1	.9999995	-.3	-.1	.9999996	-.3	-.1	.9999996	12.0

$u$	$p = 1.5$		$p = 1.6$		$p = 1.7$		$p = 1.8$		$p = 1.9$		$p = 2.0$		$u$					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
6.0	-351 -7	-30	.9980490	-301 -7	-28	.9980392	-371 -7	-26	.9980267	-382 -7	-25	.9980119	-392 -7	-23	.9979946	-403 -8	-22	6.0
6.1	-308 -6	-27	.9982994	-318 -8	-25	.9982935	-324 -8	-24	.9982853	-334 -8	-22	.9982748	-342 -6	-21	.9982622	-350 -7	-20	6.1
6.2	-272 -5	-24	.9985182	-277 -5	-23	.9985154	-283 -0	-21	.9985105	-291 -6	-20	.9985036	-298 -6	-19	.9984948	-306 -8	-17	6.2
6.3	-239 -4	-22	.9987093	-243 -4	-21	.9987090	-248 -5	-19	.9987066	-253 -5	-18	.9987026	-260 -5	-17	.9986968	-268 -5	-15	6.3
6.4	-210	-20	.9988761	-212 -4	-10	.9988776	-217 -4	-17	.9988774	-220 -4	-16	.9988756	-228 -5	-15	.9988722	-232 -4	-14	6.4
6.5	-184	-18	.9990217	-180	-17	.9990246	-190	-16	.9990259	-193 -4	-15	.9990258	-199 -4	-13	.9990244	-203 -4	-13	6.5
6.6	-160	-17	.9991487	-163	-15	.9991526	-166	-14	.9991551	-169	-13	.9991563	-172	-12	.9991563	-175	-11	6.6
6.7	-139	-15	.9992594	-142	-14	.9992641	-145	-13	.9992674	-147	-12	.9992696	-150	-11	.9992707	-153	-10	6.7
6.8	-121	-14	.9993559	-124	-13	.9993611	-127	-12	.9993650	-128	-11	.9993679	-130	-10	.9993698	-132	-8	6.8
6.9	-106	-13	.9994400	-108	-12	.9994454	-111	-11	.9994498	-112	-10	.9994532	-113	-9	.9994557	-116	-8	6.9
7.0	-93	-12	.9995133	-93	-11	.9995188	-97	-10	.9995234	-98	-9	.9995271	-98	-8	.9995300	-100	-7	7.0
7.1	-81	-11	.9995771	-83	-10	.9995826	-85	-9	.9995873	-85	-8	.9995912	-86	-7	.9995943	-87	-6	7.1
7.2	-71	-10	.9996326	-72	-9	.9996380	-74	-8	.9996427	-75	-7	.9996467	-76	-6	.9996499	-75	-5	7.2
7.3	-62	-9	.9996809	-63	-8	.9996862	-64	-7	.9996908	-64	-6	.9996947	-65	-6	.9996980	-65	-5	7.3
7.4	-54	-8	.9997229	-54	-7	.9997280	-53	-7	.9997325	-53	-6	.9997363	-53	-5	.9997396	-57	-5	7.4
7.5	-48	-8	.9997595	-47	-7	.9997643	-47	-6	.9997686	-48	-5	.9997723	-48	-5	.9997755	-49	-4	7.5
7.6	-42	-7	.9997913	-41	-6	.9997959	-41	-5	.9997999	-42	-5	.9998034	-41	-4	.9998065	-42	-4	7.6
7.7	-35	-8	.9998189	-30	-6	.9998232	-38	-5	.9998270	-38	-5	.9998304	-35	-4	.9998333	-37		7.7
7.8	-30	-8	.9998429	-31	-5	.9998469	-32	-5	.9998505	-31	-4	.9998536	-30		.9998564	-31		7.8
7.9	-26	-5	.9998638	-27	-5	.9998675	-28	-4	.9998708	-27	-4	.9998738	-27		.9998764	-28		7.9
8.0	-23	-5	.9998819	-24	-4	.9998853	-24	-4	.9998884	-24		.9998912	-24		.9998936	-24		8.0
8.1	-20	-5	.9998976	-21	-4	.9999007	-20		.9999036	-21		.9999061	-20		.9999084	-20		8.1
8.2	-18	-4	.9999112	-18	-4	.9999141	-17		.9999167	-18		.9999191	-18		.9999212	-18		8.2
8.3	-16	-4	.9999231	-16		.9999257	-15		.9999281	-15		.9999303	-16		.9999322	-15		8.3
8.4	-14	-4	.9999333	-14		.9999358	-13		.9999380	-13		.9999399	-13		.9999417	-13		8.4
8.5	-12		.9999424	-11		.9999446	-12		.9999466	-12		.9999484	-12		.9999499	-12		8.5
8.6	-11		.9999501	-10		.9999522	-11		.9999540	-11		.9999556	-11		.9999569	-10		8.6
8.7	-9		.9999568	-9		.9999587	-9		.9999603	-9		.9999617	-9		.9999630	-9		8.7
8.8	-8		.9999626	-8		.9999643	-8		.9999658	-8		.9999671	-8		.9999682	-7		8.8
8.9	-7		.9999676	-7		.9999691	-8		.9999704	-6		.9999716	-8		.9999727	-7		8.9
9.0	-6		.9999719	-6		.9999733	-8		.9999745	-5		.9999756	-5		.9999765	-5		9.0
9.1	-6		.9999757	-5		.9999769	-5		.9999780	-5		.9999790	-5		.9999799	-4		9.1
9.2	-5		.9999790	-5		.9999801	-4		.9999810	-4		.9999819	-4		.9999827	-4		9.2
9.3	-4		.9999818	-4		.9999828	-4		.9999837	-4		.9999845	-4		.9999852	-4		9.3
9.4			.9999843			.9999851			.9999859			.9999866			.9999873			9.4
9.5			.9999864			.9999872			.9999879			.9999885			.9999891			9.5
9.6			.9999882			.9999889			.9999896			.9999901			.9999906			9.6
9.7			.9999898			.9999904			.9999910			.9999915			.9999920			9.7
9.8			.9999912			.9999917			.9999922			.9999927			.9999931			9.8
9.9			.9999924			.9999929			.9999933			.9999937			.9999941			9.9
10.0			.9999934			.9999939			.9999943			.9999946			.9999949			10.0
10.1			.9999943			.9999948			.9999951			.9999954			.9999957			10.1
10.2			.9999951			.9999955			.9999958			.9999961			.9999963			10.2
10.3			.9999958			.9999961			.9999964			.9999966			.9999968			10.3
10.4			.9999964			.9999967			.9999969			.9999971			.9999973			10.4
10.5			.9999969			.9999971			.9999974			.9999975			.9999977			10.5
10.6			.9999973			.9999975			.9999977			.9999979			.9999980			10.6
10.7			.9999977			.9999978			.9999980			.9999982			.9999983			10.7
10.8			.9999980			.9999982			.9999983			.9999984			.9999986			10.8
10.9			.9999983			.9999984			.9999985			.9999986			.9999988			10.9
11.0			.9999985			.9999986			.9999987			.9999988			.9999989			11.0
11.1			.9999987			.9999988			.9999989			.9999990			.9999991			11.1
11.2			.9999989			.9999990			.9999991			.9999992			.9999992			11.2
11.3			.9999990			.9999991			.9999992			.9999993			.9999993			11.3
11.4			.9999992			.9999992			.9999993			.9999994			.9999994			11.4
11.5			.9999993			.9999993			.9999994			.9999995			.9999995			11.5
11.6			.9999994			.9999994			.9999995			.9999995			.9999996			11.6
11.7			.9999995			.9999995			.9999996			.9999996			.9999996			11.7
11.8			.9999995			.9999996			.9999996			.9999997			.9999997			11.8
11.9			.9999996			.9999996			.9999997			.9999997			.9999997			11.9
12.0			.9999997			.9999997			.9999997			.9999998			.9999998			12.0

u	p = 1.0			p = 1.1			p = 1.2			p = 1.3			p = 1.4			p = 1.5	
	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	u
12.0	.9999992			.9999993			.9999994			.9999995			.9999996			.9999996	12.0
12.1	.9999993			.9999994			.9999995			.9999996			.9999997			.9999997	12.1
12.2	.9999994			.9999995			.9999996			.9999997			.9999998			.9999998	12.2
12.3	.9999995			.9999996			.9999997			.9999998			.9999999			.9999999	12.3
12.4	.9999995			.9999996			.9999997			.9999998			.9999999			.9999999	12.4
12.5	.9999996			.9999997			.9999998			.9999999			1.0000000			1.0000000	12.5
12.6	.9999996			.9999997			.9999998			.9999999			1.0000000			1.0000000	12.6
12.7	.9999997			.9999998			.9999999			1.0000000			1.0000000			1.0000000	12.7
12.8	.9999997			.9999998			.9999999			1.0000000			1.0000000			1.0000000	12.8
12.9	.9999998			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	12.9
13.0	.9999998			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.0
13.1	.9999998			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.1
13.2	.9999998			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.2
13.3	.9999999			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.3
13.4	.9999999			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.4
13.5	.9999999			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.5
13.6	.9999999			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.6
13.7	.9999999			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.7
13.8	.9999999			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.8
13.9	.9999999			.9999999			1.0000000			1.0000000			1.0000000			1.0000000	13.9
14.0	1.0000000			1.0000000			1.0000000			1.0000000			1.0000000			1.0000000	14.0

u	p = 2.0			p = 2.1			p = 2.2			p = 2.3			p = 2.4			p = 2.5	
	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	u
.0	.0000000			.0000000			.0000000			.0000000			.0000000			.0000000	.0
.1	.0007610	+38333 +28	+486 +23	.0005898	+32550 +1430	+390 +47	.0004567	+27549 -8675	+297 +40	.0003532	+23249 -43792	+231 +1081	.0002729	+19587 -6283	+151 +28	.0002106	.1
.2	.0053553	+56991 -13131	+1843 +54	.0044346	+54035 -11430	+1541 +47	.0036683	+45687 -9675	+1293 +40	.0030313	+43792 -7936	+1081 +32	.0025025	+39065 -6283	+903 +28	.0020638	.2
.3	.0159187	+67918 -8638	+3465 +81	.0136830	+64092 -8411	+3024 +51	.0117496	+60170 -8092	+2633 +48	.0100796	+56219 -7448	+2291 +42	.0086386	+62300 -6798	+1999 +37	.0073967	.3
.4	.0332739	+67597 -5392	+4910 +50	.0293406	+65737 -5692	+4495 +47	.0258479	+63641 -5791	+3946 +43	.0227498	+61288 -5797	+3531 +40	.0200047	+68737 -5690	+3164 +37	.0175750	.4
.5	.0573798	+61714 -3057	+6961 +35	.0515719	+61720 -3481	+5462 +80	.0463103	+61321 -3829	+5003 +28	.0415488	+60560 -4082	+4671 +26	.0372445	+59484 -4249	+4174 +25	.0333576	.5
.6	.0876571	+52884 -1430	+6591 +21	.0799752	+54222 -1878	+6115 +22	.0729048	+55172 -2255	+6094 +24	.0664038	+55750 -2594	+6300 +23	.0604327	+55982 -2878	+4922 +21	.0549539	.6
.7	.1232208	+42584 -324	+6714 +8	.1138007	+44846 -695	+6259 +11	.1050165	+46787 -1070	+6015 +12	.0968338	+45348 -1401	+5680 +13	.0892191	+49602 -1704	+5334 +14	.0821398	.7
.8	.1630429	+31980 -398	+6517 0	.1521108	+34775 +82	+6260 +1	.1418049	+37292 -211	+5997 +2	.1320984	+39541 -610	+6737 +3	.1229657	+41518 -792	+5432 +4	.1143810	.8
.9	.2060630	+21774 +540	+6055 -6	.1938984	+24785 +514	+5887 -5	.1823225	+27006 -376	+5704 -4	.1713171	+30526 +180	+5526 -3	.1608641	+32642 -168	+5309 -2	.1509451	.9
1.0	.2512605	+12408 +1087	+5410 -10	.2381646	+15411 -924	+6318 -9	.2256007	+18296 +752	+6210 -8	.2135584	+21050 +672	+6105 -7	.2020267	+23663 +337	+4990 -6	.1909939	1.0
1.1	.2976988	+4125 +1190	+4683 -11	.2839719	+6960 -401	+4635 +899	.2707085	+9738 +2150	+4607 -8	.2579047	+12446 +838	+4547 -7	.2455556	+16071 +702	+4461 -6	.2336556	1.1
1.2	.3445500	-2960 +1201	+3877 -11	.3304752	-401 +1140	+899 -10	.3167901	-1071 +1071	-10 -10	.3034956	-4680 +994	+3906 -9	.2905916	-7181 +882	+3899 -8	.2780776	1.2
1.3	.3911052	-8848 +1150	+3095 -10	.3769384	-6922 +1125	+3151 -11	.3630867	-4367 +1080	+8195 -10	.3495545	-2092 +1036	+3294 -10	.3363457	-1856 +985	+3263 -9	.3234632	1.3
1.4	.4367756	-13586 +1058	+2367 -7	.4227394	-11719 +1060	+2434 -7	.4089466	-9795 +1053	+2504 -7	.3954042	-7828 +1039	+2566 -8	.3821184	-5824 +1008	+2623 -9	.3690949	1.4
1.5	.4810874	-17266 +950	+1683 -5	.4673686	-15754 +968	+1772 -6	.4538270	-14170 +974	+1857 -6	.4404711	-12625 +975	+1935 -7	.4273087	-10826 +970	+2008 -7	.4143471	1.5
1.6	.5236726	-10988 +831	+1087 -3	.5104224	-18822 +858	+1182 -4	.4972904	-17571 +883	+1271 -4	.4842855	-16247 +898	+1368 -4	.4714164	-14858 +908	+1439 -4	.4586912	1.6
1.7	.5642582	-21895 +710	+576 -2	.5515940	-21032 +745	+669 -3	.5389967	-20089 +773	+758 -3	.5264752	-19071 +802	+846 -4	.5140383	-17982 +825	+929 -4	.5016943	1.7
1.8	.6026543	-22054 +696	+149 -1	.5906624	-22497 +682	+236 -2	.5786941	-21834 +672	+320 -2	.5667578	-21093 +698	+405 -2	.5548620	-20281 +724	+487 -2	.5430149	1.8
1.9	.6387420	-22577 +489	-198 0	.6274811	-23330 +629	-121 -1	.6162081	-22997 +558	-40 -1	.6049311	-22417 +597	-2 -2	.5936576	-22156 +629	+118 -2	.5823954	1.9
2.0	.6724620	-23781 +396	-472 -1	.6619668	-23634 +430	-402 -1	.6514314	-28429 +467	-333 -1	.6408627	-23144 +498	-984 -1	.6302676	-22902 +829	-193 -1	.6196532	2.0
2.1	.7038039	-23489 +309	-679 -1	.6940891	-23593 +342	-618 -1	.6843125	-23470 +375	-560 -1	.6744799	-23873 +406	-499 -1	.6645974	-23196 +440	-438 -1	.6546711	2.1
2.2	.7327969	-22888 +233	-827 -1	.7238606	-23040 +267	-777 -1	.7148466	-23143 +234	-728 -1	.7057598	-23196 +227	-677 -1	.6966053	-23196 +227	-624 -1	.6873884	2.2
2.3	.7595011	-22954 +174	-926 -1	.7513281	-22310 +202	-887 -1	.7430664	-22922 +225	-846 -1	.7347201	-22692 +250	-802 -1	.7262936	-22831 +282	-761 -1	.7177910	2.3
2.4	.7839999	-21046 +119	-986 -1	.7765646	-21378 +142	-903 -1	.7690340	-21076 +168	-922 -1	.7614112	-21938 +187	-886 -1	.7536998	-22184 +210	-862 -1	.7459032	2.4
2.5	.8063941	-19919 +71	-1009 -1	.7996633	-20306 +92	-985 -1	.7928340	-20667 +117	-962 -1	.7859085	-20997 +135	-934 -1	.7788896	-21297 +154	-906 -1	.7717801	2.5
2.6	.8267964	-18721 +38	-1008 -1	.8207314	-19143 +50	-991 -1	.8145673	-19541 +69	-971 -1	.8083061	-19921 +85	-952 -1	.8019497	-20276 +107	-931 -1	.7955002	2.6
2.7	.8453266	-17480 +3	-985 -1	.8398852	-17923 +19	-973 -1	.8343465	-19051 +31	-962 -1	.8287116	-18767 +49	-945 -1	.8229822	-19148 +64	-891 -1	.8171597	2.7
2.8	.8621088	-16236 -16	-949 -1	.8572467	-16684 -3	-946 -1	.8522906	-17120 +4	-931 -1	.8472414	-17546 +20	-923 -1	.8420999	-17956 +30	-911 -1	.8368673	2.8
2.9	.8792674	-15090 -30	-899 -1	.8729398	-15446 -27	-895 -1	.8685527	-15885 -14	-890 -1	.8640166	-16314 -4	-883 -1	.8594220	-16734 +6	-879 -1	.8547395	2.9
3.0	.8909260	-13799 -43	-843 -1	.8870883	-14235 -42	-843 -1	.8831663	-14684 -31	-839 -1	.8791604	-15089 -24	-837 -1	.8750707	-15597 -17	-834 -1	.8708976	3.0



u	p = 1.5		p = 1.6		p = 1.7		p = 1.8		p = 1.9		p = 2.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
12.0			.9999997			.9999997			.9999997			.9999998			12.0
12.1			.9999997			.9999997			.9999998			.9999998			12.1
12.2			.9999998			.9999998			.9999998			.9999998			12.2
12.3			.9999998			.9999998			.9999999			.9999999			12.3
12.4			.9999998			.9999998			.9999999			.9999999			12.4
12.5			.9999998			.9999999			.9999999			.9999999			12.5
12.6			.9999999			.9999999			.9999999			.9999999			12.6
12.7			.9999999			.9999999			.9999999			.9999999			12.7
12.8			.9999999			.9999999			.9999999			.9999999			12.8
12.9			.9999999			.9999999			.9999999			.9999999			12.9
13.0			.9999999			.9999999			.9999999	1.0000000		1.0000000			13.0
13.1			.9999999			1.0000000			1.0000000						
13.2			1.0000000												

u	p = 2.5		p = 2.6		p = 2.7		p = 2.8		p = 2.9		p = 3.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
.0			.0000000			.0000000			.0000000			.0000000			.0
.1	+18428	+140	.0001624	+13738	+109	.0001251	+11495	+85	.0000963	+9584	+66	.0000740	+7972	+61	.1
.2	+34797	+752	.0017004	+30890	+827	.0013997	+27335	+521	.0011510	+24129	+453	.0009457	+21221	+2	.2
.3	+48464	+1727	.0063274	+44725	+1496	.0054078	+41136	+1295	.0046177	+37709	+1120	.0039395	+34462	+966	.3
.4	+66043	+3815	.0154269	+53249	+2698	.0135295	+50491	+2232	.0118553	+47335	+1924	.0103795	+44630	+1762	.4
.5	+88137	+6065	.0298513	+58582	+3463	.0266913	+54799	+3151	.0238464	+52883	+2580	.0212875	+50846	+2596	.5
.6	+115896	+8683	.0499319	+56524	+4281	.0453330	+54897	+3917	.0411258	+54039	+3818	.0372803	+52955	+3340	.6
.7	+150533	+12044	.0755649	+51214	+4744	.0694644	+51599	+4452	.0638091	+51734	+4173	.0585716	+51632	+3912	.7
.8	+19811	+14	.1063193	+44879	+4980	.0987557	+46679	+4739	.0916658	+46837	+4501	.0850261	+47562	+4271	.8
.9	+26129	+4870	.1415416	+39842	+4986	.1326349	+38023	+4780	.1242062	+40199	+4594	.1162368	+41058	+4408	.9
1.0	+192	-5	.1804481	+28437	+4743	.1703766	+20555	+4813	.1607664	+32568	+4480	.1516043	+34381	+4345	1.0
1.1	+17603	+4428	.2221983	+20954	+4357	.2111768	+22353	+4281	.2005834	+24533	+4199	.1904099	+26634	+4113	1.1
1.2	+9636	+3884	.2659519	+12037	+3881	.2542123	+14375	+3811	.2428559	+16638	+3795	.2318789	+18822	+3752	1.2
1.3	+2461	+3285	.3109092	+4722	+3301	.2986853	+6957	+3308	.2867922	+9160	+3310	.2752301	+11319	+3304	1.3
1.4	+919	-5	.3563387	+1751	+2718	.3438540	+301	+2751	.3316445	+2331	+2782	.3197132	+4392	+2807	1.4
1.5	-9081	+2076	.4015931	-7298	+2197	.3890528	-5484	+2194	.3767319	-3847	+2245	.3646355	-1793	+2291	1.5
1.6	-13410	+1517	.4461177	-11909	+1599	.4337032	-10359	+1559	.4214546	-8770	+1723	.4093783	-7147	+1782	1.6
1.7	-16925	-1012	.4894515	-15966	+1090	.4773177	-14332	+1184	.4653003	-13096	+1235	.4534064	-11631	+1304	1.7
1.8	-19401	+569	.5312247	-18457	+645	.5194990	-17450	+721	.5078454	-16384	+790	.4962714	-15297	+865	1.8
1.9	-21227	+190	.5711522	-20534	+263	.5599353	-19778	+337	.5487521	-18964	+408	.5376097	-18091	+479	1.9
2.0	-22399	-125	.6090263	-21933	-58	.5983938	-21406	+11	.5877624	-20819	+79	.5771389	-20177	+145	2.0
2.1	-23006	-378	.6447072	-22788	-316	.6347117	-22413	-254	.6246908	-22034	-195	.6146504	-21599	-134	2.1
2.2	-23147	-672	.6781143	-23046	-518	.6687883	-22895	-466	.6594158	-22694	-413	.6500020	-22443	-360	2.2
2.3	-22904	-716	.7092168	-22943	-870	.7005754	-22937	-742	.6918714	-22856	-505	.6831093	-22791	-585	2.3
2.4	-22333	-818	.7380250	-22905	-1282	.7300688	-22919	-928	.7220384	-22693	-705	.7139375	-22728	-635	2.4
2.5	-21568	-879	.7645827	-21807	-1850	.7573303	-22013	-1318	.7499361	-22189	-790	.7424929	-22299	-766	2.5
2.6	-20696	-910	.7889597	-20911	-2587	.7823005	-21190	-1884	.7756149	-21439	-1339	.7688154	-21864	-1314	2.6
2.7	-19519	-916	.8112456	-19870	-3598	.8052417	-20200	-2680	.7991498	-20511	-1863	.7929715	-20795	-2448	2.7
2.8	-18354	-902	.8315445	-18784	-4888	.8261329	-19100	-3777	.8206336	-19447	-2622	.8150481	-19780	-3500	2.8
2.9	-17141	-870	.8499700	-17641	-6484	.8451141	-17928	-5155	.8401727	-18300	-3546	.8351467	-18659	-4611	2.9
3.0	-15919	-831	.8666414	-16321	-8233	.8623027	-16717	-6822	.8578818	-17192	-5161	.8533794	-17478	-6909	3.0

$u$	$p = 2.0$			$p = 2.1$			$p = 2.2$			$p = 2.3$			$p = 2.4$			$p = 2.5$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$u$
3.0	.8909260	-13799 43	-843	.8870883	-14285 42	-843	.8831663	-14664 31	-839	.8791604	-15089 24	-837	.8750707	-15507 17	-834	.8708976	3.0
3.1	.9032047	-12643 53	-784	.8998133	-13069 61	-784	.8963435	-13476 45	-784	.8927953	-13885 40	-784	.8891687	-14287 36	-783	.8854638	3.1
3.2	.9142191	-11549 61	-724	.9112323	-11937 57	-724	.9081731	-12333 56	-725	.9050414	-12729 52	-727	.9018370	-13124 52	-728	.8985598	3.2
3.3	.9240795	-10498 65	-660	.9214576	-10871 62	-663	.9187694	-11246 61	-666	.9160146	-11620 60	-668	.9131929	-11994 62	-671	.9103043	3.3
3.4	.9328901	-9521 67	-600	.9305958	-9869 66	-603	.9282411	-10218 64	-607	.9258258	-10570 64	-610	.9233494	-10922 65	-613	.9208118	3.4
3.5	.9407486	-8669 68	-542	.9387471	-8931 68	-546	.9366910	-9268 68	-549	.9345800	-9681 67	-553	.9324137	-9912 68	-557	.9301917	3.5
3.6	.9477462	-7795 68	-487	.9460053	-8039 69	-491	.9442154	-8363 67	-495	.9423761	-8660 66	-499	.9404868	-8963 70	-503	.9385474	3.6
3.7	.9539672	-6987 66	-436	.9524576	-7266 67	-440	.9509040	-7527 69	-443	.9493062	-7804 69	-447	.9476636	-8084 67	-451	.9459759	3.7
3.8	.9594895	-6271 62	-388	.9581843	-6516 65	-392	.9568399	-6765 66	-396	.9554559	-7015 62	-399	.9540320	-7269 64	-403	.9525678	3.8
3.9	.9643847	-5619 68	-346	.9632594	-5837 62	-348	.9620993	-6060 63	-351	.9609041	-6328 60	-355	.9596735	-6582 62	-358	.9584069	3.9
4.0	.9687180	-5021 54	-305	.9677508	-5221 58	-308	.9667527	-5422 59	-311	.9657235	-5627 57	-314	.9646628	-5834 59	-318	.9635704	4.0
4.1	.9725492	-4483 50	-269	.9717201	-4658 53	-272	.9708639	-4839 54	-275	.9699802	-5023 53	-277	.9690687	-5209 55	-280	.9681292	4.1
4.2	.9759321	-3991 48	-237	.9752236	-4149 48	-239	.9744912	-4309 48	-242	.9737346	-4472 50	-244	.9729537	-4642 50	-247	.9721480	4.2
4.3	.9789159	-3561 42	-208	.9783122	-3689 44	-210	.9776876	-3829 47	-212	.9770418	-3979 47	-214	.9763745	-4127 49	-217	.9756856	4.3
4.4	.9815446	-3192 38	-183	.9810319	-3276 40	-184	.9805008	-3402 43	-186	.9799511	-3531 44	-188	.9793826	-3682 46	-189	.9787952	4.4
4.5	.9838581	-2795 35	-160	.9834240	-2903 36	-161	.9829738	-3014 40	-163	.9825073	-3127 41	-164	.9820245	-3245 43	-166	.9815251	4.5
4.6	.9858921	-2474 32	-140	.9855258	-2569 33	-141	.9851454	-2667 37	-142	.9847508	-2767 38	-143	.9843419	-2889 40	-144	.9839186	4.6
4.7	.9876787	-2186 29	-123	.9873707	-2272 30	-123	.9870503	-2367 33	-124	.9867176	-2445 34	-125	.9863724	-2545 37	-126	.9860146	4.7
4.8	.9892465	-1932 25	-107	.9889884	-2005 27	-107	.9887195	-2079 31	-108	.9884399	-2156 31	-108	.9881494	-2234 34	-109	.9878480	4.8
4.9	.9906211	-1705 24	-94	.9904056	-1767 25	-94	.9901808	-1832 28	-94	.9899466	-1899 28	-94	.9897030	-1968 31	-95	.9894499	4.9
5.0	.9918252	-1501 22	-82	.9916461	-1556 23	-82	.9914589	-1613 25	-82	.9912634	-1679 26	-82	.9910598	-1729 29	-82	.9908480	5.0
5.1	.9928792	-1322 20	-71	.9927310	-1369 21	-71	.9925757	-1418 23	-71	.9924132	-1467 24	-71	.9922437	-1519 26	-71	.9920671	5.1
5.2	.9938010	-1161 18	-62	.9936790	-1203 19	-62	.9935507	-1244 21	-62	.9934163	-1288 21	-62	.9932757	-1333 23	-62	.9931289	5.2
5.3	.9946067	-1022 16	-55	.9945067	-1066 17	-54	.9944013	-1092 19	-54	.9942906	-1130 19	-53	.9941744	-1166 21	-53	.9940530	5.3
5.4	.9953102	-895 15	-48	.9952288	-925 15	-47	.9951427	-956 17	-47	.9950519	-987 17	-47	.9949565	-1022 19	-46	.9948564	5.4
5.5	.9959242	-785 13	-42	.9958584	-811 13	-41	.9957885	-838 15	-41	.9957145	-865 15	-40	.9956364	-892 16	-40	.9955543	5.5
5.6	.9964597	-685 11	-37	.9964069	-709 12	-36	.9963505	-732 13	-36	.9962906	-756 12	-35	.9962271	-780 16	-35	.9961601	5.6
5.7	.9969264	-602 10	-32	.9968845	-622 11	-32	.9968393	-639 12	-31	.9967911	-659 11	-31	.9967398	-680 14	-30	.9966854	5.7
5.8	.9973329	-527 9	-29	.9972999	-541 10	-28	.9972642	-560 11	-27	.9972257	-576 10	-27	.9971845	-593 12	-26	.9971407	5.8
5.9	.9976867	-459 8	-25	.9976612	-474 9	-25	.9976331	-486 10	-24	.9976027	-501 9	-23	.9975699	-515 11	-23	.9975349	5.9
6.0	.9979946	-408 8	-22	.9979751	-414 8	-22	.9979534	-425 9	-21	.9979296	-438 8	-20	.9979038	-449 10	-20	.9978760	6.0
6.1	.9982622	-359 7	-20	.9982476	-359 7	-19	.9982312	-389 8	-18	.9982129	-389 7	-18	.9981928	-399 9	-17	.9981710	6.1
6.2	.9984948	-305 6	-17	.9984843	-313 6	-17	.9984721	-323 7	-17	.9984582	-331 6	-16	.9984428	-340 8	-15	.9984258	6.2
6.3	.9986968	-269 5	-15	.9986895	-273 5	-15	.9986807	-279 6	-15	.9986704	-287 5	-13	.9986588	-293 7	-13	.9986459	6.3
6.4	.9988722	-232 4	-14	.9988674	-236 4	-13	.9988614	-243 6	-13	.9988541	-250 5	-12	.9988455	-255 6	-12	.9988358	6.4
6.5	.9990244	-203 4	-13	.9990217	-208 4	-12	.9990178	-211 5	-11	.9990128	-216 5	-11	.9990067	-222 6	-11	.9989995	6.5
6.6	.9991563	-175 3	-11	.9991552	-179 3	-10	.9991531	-184 4	-10	.9991499	-187 4	-10	.9991457	-190 5	-9	.9991407	6.6
6.7	.9992707	-153 3	-10	.9992708	-155 3	-9	.9992700	-158 4	-9	.9992683	-162 4	-8	.9992657	-165 5	-8	.9992623	6.7
6.8	.9993698	-132 3	-8	.9993709	-135 3	-9	.9993711	-139 4	-8	.9993705	-140 4	-8	.9993691	-144 5	-7	.9993670	6.8
6.9	.9994557	-118 3	-8	.9994574	-117 3	-8	.9994583	-118 4	-7	.9994586	-121 4	-7	.9994581	-123 5	-6	.9994570	6.9
7.0	.9995300	-100 3	-7	.9995322	-102 3	-7	.9995337	-104 4	-7	.9995346	-105 4	-5	.9995348	-106 5	-5	.9995345	7.0
7.1	.9995943	-87 3	-6	.9995968	-88 3	-6	.9995987	-89 4	-6	.9996001	-91 4	-5	.9996008	-92 5	-5	.9996011	7.1
7.2	.9996499	-75 3	-5	.9996526	-78 3	-5	.9996548	-77 4	-6	.9996565	-78 4	-5	.9996576	-81 5	-5	.9996583	7.2
7.3	.9996980	-65 3	-5	.9997008	-66 3	-5	.9997031	-66 4	-5	.9997050	-67 4	-4	.9997064	-70 4	-4	.9997074	7.3
7.4	.9997396	-57 3	-5	.9997424	-57 3	-4	.9997448	-57 4	-4	.9997468	-58 4	-4	.9997484	-59 4	-4	.9997496	7.4
7.5	.9997755	-49 3	-4	.9997783	-49 3	-4	.9997807	-50 4	-4	.9997827	-50 4	-4	.9997844	-51 4	-4	.9997857	7.5
7.6	.9998065	-42 3	-4	.9998092	-42 3	-4	.9998116	-43 4	-4	.9998136	-43 4	-4	.9998153	-44 4	-4	.9998167	7.6
7.7	.9998333	-37 3	-4	.9998359	-37 3	-4	.9998382	-37 4	-4	.9998402	-37 4	-4	.9998419	-37 4	-4	.9998434	7.7
7.8	.9998564	-31 3	-4	.9998589	-33 3	-4	.9998611	-32 4	-4	.9998630	-32 4	-4	.9998647	-32 4	-4	.9998662	7.8
7.9	.9998764	-28 3	-4	.9998787	-27 3	-4	.9998808	-28 4	-4	.9998826	-28 4	-4	.9998842	-27 4	-4	.9998856	7.9
8.0	.9998936	-24 3	-4	.9998958	-24 3	-4	.9998977	-24 4	-4	.9998994	-24 4	-4	.9999010	-24 4	-4	.9999023	8.0
8.1	.9999084	-20 3	-4	.9999105	-21 3	-4	.9999123	-21 4	-4	.9999139	-21 4	-4	.9999154	-21 4	-4	.9999166	8.1
8.2	.9999212	-18 3	-4	.9999231	-18 3	-4	.9999248	-18 4	-4	.9999263	-18 4	-4	.9999276	-18 4	-4	.9999288	8.2
8.3	.9999322	-15 3	-4	.9999339	-15 3	-4	.9999355	-15 4	-4	.9999369	-15 4	-4	.9999382	-15 4	-4	.9999393	8.3
8.4	.9999417	-13 3	-4	.9999433	-13 3	-4	.9999448	-14 4	-4	.9999461	-14 4	-4	.9999472	-13 4	-4	.9999482	8.4
8.5	.9999499	-12 3	-4	.9999514	-12 3	-4	.9999527	-12 4	-4	.9999539	-12 4	-4	.9999549	-11 4	-4	.9999559	8.5
8.6	.9999569	-10 3	-4	.9999583	-10 3	-4	.9999595	-10 4	-4	.9999606	-10 4	-4	.9999615	-10 4	-4	.9999623	8.6
8.7	.9999630	-9 3	-4	.9999642	-8 3	-4	.9999653	-8 4	-4	.9999663	-8 4	-4	.9999671	-8 4	-4	.9999679	8.7
8.8	.9999682	-7 3	-4	.9999693	-7 3	-4	.9999703	-7 4	-4	.9999712	-7 4	-4	.9999720	-7 4	-4	.9999727	8.8
8.9	.9999727	-7 3	-4	.9999737	-6 3	-4	.9999746	-6 4	-4	.9999754	-6 4	-4	.9999761	-6 4	-4	.9999767	8.9
9.0	.9999765	-5 3	-4	.9999774	-5 3	-4	.9999782	-5 4	-4	.9999789	-5 4	-4	.9999796	-5 4	-4	.9999802	9.0

u	p = 2.5		p = 2.6		p = 2.7		p = 2.8		p = 2.9		p = 3.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
3.0	-169.19	-831	.8666414	-16321	-825	.8623027	-16717	-822	.8578818	-17102	-815	.8533794	-17478	-809	.8487961	-17843	-802	3.0
3.1	-147.02	-782	.8816807	-16193	-780	.8778196	-16497	-778	.8738807	-16827	-775	.8698643	-17267	-771	.8657708	-17643	-769	3.1
3.2	-136.10	-728	.8952097	-15904	-729	.8917868	-14291	-729	.8882911	-14675	-728	.8847225	-15053	-727	.8810812	-15426	-725	3.2
3.3	-123.70	-673	.9073483	-12744	-674	.9043249	-13116	-675	.9012340	-13488	-677	.8980754	-13858	-676	.8948490	-14225	-678	3.3
3.4	-112.76	-618	.9182125	-11617	-619	.9155514	-11987	-621	.9128281	-12341	-624	.9100425	-12696	-626	.9071943	-13050	-628	3.4
3.5	-102.42	-560	.9279136	-10576	-564	.9255792	-10909	-567	.9231881	-11245	-570	.9207400	-11582	-573	.9182346	-11920	-576	3.5
3.6	-92.72	-505	.9365572	-9531	-510	.9345161	-9894	-514	.9324236	-10209	-518	.9302793	-10525	-521	.9280829	-10842	-524	3.6
3.7	-83.66	-456	.9442427	-8629	-459	.9424636	-8941	-463	.9406382	-9232	-467	.9387661	-9526	-471	.9368470	-9824	-474	3.7
3.8	-75.28	-407	.9510630	-7791	-411	.9495170	-8056	-415	.9479296	-8525	-419	.9463003	-8800	-423	.9446287	-9079	-427	3.8
3.9	-67.65	-362	.9571042	-6994	-366	.9557648	-7236	-370	.9543885	-7481	-374	.9529749	-7731	-377	.9515234	-7982	-381	3.9
4.0	-60.47	-321	.9624460	-6264	-325	.9612890	-6482	-328	.9600993	-6706	-332	.9588764	-6932	-336	.9576199	-7183	-339	4.0
4.1	-54.00	-283	.9671614	-5594	-287	.9661650	-5794	-290	.9651395	-5995	-293	.9640847	-6200	-297	.9630001	-6407	-300	4.1
4.2	-48.12	-249	.9713174	-4986	-252	.9704616	-5164	-255	.9695802	-6144	-258	.9686730	-6529	-262	.9677396	-6717	-265	4.2
4.3	-42.90	-219	.9749748	-4435	-221	.9742418	-4595	-224	.9734865	-4756	-227	.9727084	-4919	-231	.9719074	-5088	-233	4.3
4.4	-37.97	-192	.9781887	-3936	-194	.9775627	-4076	-196	.9769172	-4220	-198	.9762519	-4369	-201	.9755664	-4519	-204	4.4
4.5	-33.44	-167	.9810090	-3486	-169	.9804760	-3611	-171	.9799259	-3739	-173	.9793585	-3869	-176	.9787735	-4002	-178	4.5
4.6	-29.75	-146	.9834807	-3082	-147	.9830282	-3193	-149	.9825607	-3305	-151	.9820782	-3421	-153	.9815804	-3539	-155	4.6
4.7	-26.26	-127	.9856442	-2729	-128	.9852611	-2818	-129	.9848650	-2917	-131	.9844558	-3018	-132	.9840334	-3153	-134	4.7
4.8	-23.14	-110	.9875357	-2399	-111	.9872122	-2482	-112	.9868776	-2570	-113	.9865316	-2659	-115	.9861741	-2749	-116	4.8
4.9	-20.40	-95	.9891873	-2109	-96	.9889151	-2184	-97	.9886332	-2259	-98	.9883415	-2337	-99	.9880399	-2418	-100	4.9
5.0	-17.89	-82	.9906280	-1854	-83	.9903996	-1915	-84	.9901629	-1984	-86	.9899177	-2052	-86	.9896639	-2120	-86	5.0
5.1	-15.73	-71	.9918833	-1626	-72	.9916923	-1681	-72	.9914942	-1740	-73	.9912887	-1798	-74	.9910759	-1860	-76	5.1
5.2	-13.77	-63	.9929760	-1425	-63	.9928169	-1474	-62	.9926515	-1522	-62	.9924799	-1575	-63	.9923019	-1628	-64	5.2
5.3	-12.07	-58	.9939262	-1247	-62	.9937941	-1289	-64	.9936566	-1382	-64	.9935136	-1374	-64	.9933653	-1420	-65	5.3
5.4	-10.55	-46	.9947517	-1089	-46	.9946424	-1125	-46	.9945285	-1162	-47	.9944099	-1200	-47	.9942867	-1240	-48	5.4
5.5	-9.21	-40	.9954683	-963	-40	.9953782	-982	-40	.9952842	-1014	-40	.9951862	-1047	-40	.9950841	-1078	-39	5.5
5.6	-8.05	-35	.9960897	-830	-34	.9960158	-858	-34	.9959385	-882	-34	.9958578	-910	-34	.9957737	-940	-35	5.6
5.7	-7.09	-30	.9966281	-722	-30	.9965678	-745	-30	.9965046	-768	-30	.9964384	-792	-30	.9963693	-816	-30	5.7
5.8	-6.11	-26	.9970943	-629	-26	.9970453	-647	-26	.9969939	-668	-25	.9969398	-687	-25	.9968833	-709	-26	5.8
5.9	-5.31	-22	.9974976	-547	-22	.9974581	-574	-22	.9974164	-579	-22	.9973725	-607	-22	.9973264	-618	-21	5.9
6.0	-4.62	-20	.9978462	-475	-10	.9978145	-487	-19	.9977810	-503	-19	.9977455	-517	-18	.9977082	-532	-19	6.0
6.1	-4.02	-17	.9981474	-412	-17	.9981222	-423	-17	.9980953	-438	-16	.9980668	-448	-15	.9980368	-460	-17	6.1
6.2	-3.49	-15	.9984074	-357	-14	.9983875	-387	-14	.9983662	-377	-14	.9983435	-386	-14	.9983194	-397	-13	6.2
6.3	-3.02	-13	.9986317	-309	-13	.9986161	-318	-13	.9985993	-325	-12	.9985814	-334	-11	.9985623	-344	-12	6.3
6.4	-2.62	-11	.9988249	-267	-11	.9988129	-275	-10	.9987999	-281	-10	.9987859	-289	-10	.9987708	-297	-11	6.4
6.5	-2.27	-10	.9989914	-231	-10	.9989824	-238	-9	.9989724	-248	-9	.9989615	-249	-9	.9989497	-255	-9	6.5
6.6	-1.96	-8	.9991348	-200	-8	.9991281	-205	-8	.9991205	-209	-8	.9991122	-214	-8	.9991031	-219	-7	6.6
6.7	-1.69	-8	.9992582	-173	-7	.9992533	-176	-7	.9992477	-180	-7	.9992415	-184	-6	.9992346	-189	-7	6.7
6.8	-1.47	-7	.9993643	-149	-6	.9993609	-151	-6	.9993569	-155	-6	.9993523	-169	-6	.9993471	-162	-5	6.8
6.9	-1.27	-6	.9994554	-128	-5	.9994532	-130	-5	.9994505	-134	-5	.9994472	-135	-5	.9994434	-139	-5	6.9
7.0	-1.09	-5	.9995337	-110	-5	.9995324	-112	-5	.9995307	-116	-5	.9995285	-120	-5	.9995258	-120	-4	7.0
7.1	-0.94	-5	.9996010	-95	-5	.9996004	-96	-4	.9995993	-99	-4	.9995979	-100	-4	.9995961	-103	-4	7.1
7.2	-0.81	-4	.9996586	-81	-4	.9996585	-82	-4	.9996581	-85	-4	.9996573	-86	-4	.9996562	-88	-4	7.2
7.3	-0.70	-4	.9997081	-71	-4	.9997084	-72	-4	.9997084	-73	-4	.9997081	-74	-4	.9997075	-75	-4	7.3
7.4	-0.60	-4	.9997505	-61	-4	.9997511	-63	-4	.9997515	-63	-4	.9997515	-64	-4	.9997513	-64	-4	7.4
7.5	-0.51	-4	.9997868	-52	-4	.9997876	-54	-4	.9997882	-54	-4	.9997885	-55	-4	.9997886	-55	-4	7.5
7.6	-0.43	-4	.9998179	-44	-4	.9998189	-46	-4	.9998196	-46	-4	.9998201	-47	-4	.9998204	-47	-4	7.6
7.7	-0.37	-4	.9998446	-38	-4	.9998456	-39	-4	.9998464	-39	-4	.9998470	-39	-4	.9998475	-40	-4	7.7
7.8	-0.32	-4	.9998674	-33	-4	.9998684	-33	-4	.9998693	-33	-4	.9998700	-34	-4	.9998706	-34	-4	7.8
7.9	-0.27	-4	.9998869	-29	-4	.9998879	-28	-4	.9998888	-28	-4	.9998896	-29	-4	.9998902	-29	-4	7.9
8.0	-0.24	-4	.9999035	-24	-4	.9999045	-23	-4	.9999054	-24	-4	.9999062	-25	-4	.9999069	-26	-4	8.0
8.1	-0.21	-4	.9999177	-20	-4	.9999186	-19	-4	.9999195	-20	-4	.9999203	-21	-4	.9999210	-22	-4	8.1
8.2	-0.17	-4	.9999299	-17	-4	.9999308	-17	-4	.9999316	-18	-4	.9999324	-18	-4	.9999331	-19	-4	8.2
8.3	-0.14	-4	.9999403	-14	-4	.9999411	-15	-4	.9999419	-16	-4	.9999426	-16	-4	.9999433	-16	-4	8.3
8.4	-0.12	-4	.9999491	-12	-4	.9999499	-13	-4	.9999507	-14	-4	.9999514	-14	-4	.9999520	-13	-4	8.4
8.5	-0.11	-4	.9999567	-10	-4	.9999574	-11	-4	.9999581	-11	-4	.9999588	-12	-4	.9999594	-11	-4	8.5
8.6	-0.09	-4	.9999631	-9	-4	.9999638	-10	-4	.9999644	-9	-4	.9999650	-10	-4	.9999656	-9	-4	8.6
8.7	-0.08	-4	.9999686	-8	-4	.9999692	-9	-4	.9999698	-8	-4	.9999704	-9	-4	.9999709	-8	-4	8.7
8.8	-0.07	-4	.9999733	-7	-4	.9999739	-8	-4	.9999744	-7	-4	.9999749	-8	-4	.9999754	-7	-4	8.8
8.9	-0.06	-4	.9999773	-6	-4	.9999778	-7	-4	.9999783	-6	-4	.9999788	-7	-4	.9999792	-6	-4	8.9
9.0	-0.05	-4	.9999807	-5	-4	.9999812	-6	-4	.9999816	-5	-4	.9999820	-6	-4	.9999824	-5	-4	9.0



$u$	$p = 2.5$		$p = 2.6$		$p = 2.7$		$p = 2.8$		$p = 2.9$		$p = 3.0$		$u$		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
9.0	-5		.9999807	-5		.9999812	-6		.9999816	-5		.9999820	-6		9.0
9.1	-4		.9999836	-4		.9999840	-5		.9999844	-4		.9999848	-5		9.1
9.2	-4		.9999861	-4		.9999865	-4		.9999868	-4		.9999872	-4		9.2
9.3			.9999882			.9999885			.9999888			.9999891			9.3
9.4			.9999900			.9999903			.9999906			.9999908			9.4
9.5			.9999915			.9999918			.9999920			.9999923			9.5
9.6			.9999927			.9999930			.9999932			.9999934			9.6
9.7			.9999939			.9999941			.9999943			.9999945			9.7
9.8			.9999948			.9999950			.9999952			.9999954			9.8
9.9			.9999956			.9999958			.9999959			.9999961			9.9
10.0			.9999962			.9999964			.9999965			.9999967			10.0
10.1			.9999968			.9999970			.9999971			.9999972			10.1
10.2			.9999973			.9999974			.9999975			.9999976			10.2
10.3			.9999977			.9999978			.9999979			.9999980			10.3
10.4			.9999981			.9999981			.9999982			.9999983			10.4
10.5			.9999984			.9999984			.9999985			.9999986			10.5
10.6			.9999986			.9999986			.9999987			.9999988			10.6
10.7			.9999988			.9999988			.9999989			.9999990			10.7
10.8			.9999990			.9999990			.9999991			.9999991			10.8
10.9			.9999992			.9999992			.9999992			.9999992			10.9
11.0			.9999993			.9999993			.9999994			.9999994			11.0
11.1			.9999994			.9999994			.9999995			.9999995			11.1
11.2			.9999995			.9999995			.9999995			.9999996			11.2
11.3			.9999996			.9999996			.9999996			.9999996			11.3
11.4			.9999996			.9999996			.9999997			.9999997			11.4
11.5			.9999997			.9999997			.9999997			.9999997			11.5
11.6			.9999997			.9999998			.9999998			.9999998			11.6
11.7			.9999998			.9999998			.9999998			.9999998			11.7
11.8			.9999998			.9999998			.9999998			.9999998			11.8
11.9			.9999998			.9999998			.9999999			.9999999			11.9
12.0			.9999999			.9999999			.9999999			.9999999			12.0
12.1			.9999999			.9999999			.9999999			.9999999			12.1
12.2			.9999999			.9999999			.9999999			.9999999			12.2
12.3			.9999999			.9999999			.9999999			.9999999			12.3
12.4			1.0000000			1.0000000			1.0000000			1.0000000			12.4

u	p = 3.0			p = 3.1			p = 3.2			p = 3.3			p = 3.4			p = 3.5	
	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	u
-0	.0000000	—	0	.0000000	—	0	.0000000	—	0	.0000000	—	0	.0000000	—	0	.0000000	.0
-1	.0000568	+6826	+40	.0000436	+5494	+30	.0000334	+4549	+24	.0000256	+3789	+8	.0000196	+3199	+4	.0000150	-.1
-2	.0007762	+18626	+298	.0006366	+16304	+247	.0005217	+14237	+204	.0004271	+12407	+169	.0003494	+10788	+139	.0002855	-.2
-3	.0033581	+31399	+775	.0028600	+28551	+713	.0024337	+25859	+618	.0020693	+23375	+533	.0017580	+21089	+457	.0014924	-.3
-4	.0090799	+41865	+1563	.0079365	+39110	+1384	.0069316	+36431	+1225	.0060490	+33849	+1052	.0052748	+31367	+956	.0045961	-.4
-5	.0189882	+48725	+2331	.0169240	+46541	+2128	.0150726	+44321	+1924	.0134136	+42065	+1737	.0119283	+38954	+1565	.0105995	-.5
-6	.0337690	+51755	+3080	.0305656	+50378	+2835	.0276457	+48879	+2609	.0249867	+47278	+2396	.0225672	+45800	+2200	.0203677	-.6
-7	.0537253	+51319	+3860	.0492450	+50811	+3420	.0451067	+50127	+3192	.0412876	+49288	+2912	.0377661	+48308	+2770	.0345216	-.7
-8	.0788135	+45067	+4046	.0730055	+45364	+3829	.0675804	+45466	+3020	.0625173	+45286	+3416	.0577958	+45141	+3226	.0533966	-.8
-9	.1087084	+42732	+4224	.1016024	+43709	+4044	.0949007	+44484	+3866	.0885856	+45083	+3691	.0826396	+45307	+3519	.0770454	-.9
1.0	.1428765	+36030	+4207	.1345695	+37509	+4069	.1266694	+38819	+3930	.1191622	+39987	+3790	.1120341	+40953	+3651	.1052710	1.0
1.1	.1806476	+28584	+4022	.1712875	+30402	+3927	.1623200	+32088	+3829	.1537355	+33835	+3729	.1455239	+35045	+3626	.1376749	1.1
1.2	.2212771	+22616	+3706	.2110457	+22920	+3654	.2011794	+24821	+3392	.1916723	+26623	+3630	.1825182	+28816	+3464	.1737105	1.2
1.3	.2639984	+18429	+3292	.2530959	+15482	+3276	.2425209	+17473	+3263	.2322713	+19391	+3224	.2223441	+21235	+3192	.2127361	1.3
1.4	.3080626	+6414	+2823	.2966943	+8411	+2837	.2856097	+10375	+2843	.2748094	+12302	+2844	.2642935	+14185	+2842	.2540618	1.4
1.5	.3527682	+65	+2329	.3411338	+1928	+2366	.3297360	+3785	+2395	.3185777	+5631	+2420	.3076614	+7458	+2440	.2969891	1.5
1.6	.3974803	+789	+1839	.3857661	+3821	+1889	.3742408	+5939	+1936	.3629091	+784	+1977	.3517751	+1269	+2015	.3408426	1.6
1.7	.4416429	+10216	+1369	.4300163	+373	+1427	.4185324	+1487	+1535	.4071971	+1535	+1535	.3960157	+1589	+1589	.3849932	1.7
1.8	.4847839	+14097	+934	.4733389	+12881	+1000	.4620957	+11623	+1063	.4509078	+10331	+1122	.4398321	+9002	+1178	.4288742	1.8
1.9	.5265152	+17106	+643	.5154752	+16158	+613	.5044965	+15162	+676	.4935854	+14000	+740	.4827483	+12079	+798	.4719910	1.9
2.0	.5665299	+19490	+200	.5559418	+18729	+274	.5453811	+17928	+830	.5348540	+17079	+397	.5243666	+16183	+457	.5139249	2.0
2.1	.6045966	+2111	-73	.5945355	+20873	-15	.5844729	+19983	+44	.5744147	+19344	+99	.5643666	+18657	+189	.5543344	2.1
2.2	.6405522	+22141	-305	.6310719	+21790	-252	.6215664	+21392	-199	.6120410	+20047	-146	.6025009	+20455	-95	.5929514	2.2
2.3	.6742937	+22651	-488	.6654293	+22467	-442	.6565207	+22237	-395	.6475726	+21963	-348	.6385897	+21846	-301	.6295767	2.3
2.4	.7057701	+22724	-627	.6975400	+22979	-566	.6892513	+22596	-547	.6809079	+22473	-506	.6725139	+22302	-466	.6640733	2.4
2.5	.7349741	+22436	-725	.7273828	+22590	-692	.7197223	+22846	-668	.7119960	+22549	-625	.7042072	+22315	-590	.6963594	2.5
2.6	.7619345	+21859	-824	.7549747	+21259	-762	.7479387	+20225	-735	.7408292	+20262	-707	.7336340	+20256	-650	.7264008	2.6
2.7	.7867090	+21059	-889	.7803641	+21298	-803	.7739389	+21512	-782	.7674356	+21701	-760	.7608563	+21864	-787	.7542033	2.7
2.8	.8093776	+20991	-834	.8036237	+20834	-819	.7979789	+20657	-802	.7918719	+20910	-787	.7858772	+21140	-767	.7798058	2.8
2.9	.8300371	+19906	-826	.8248449	+19335	-813	.8195712	+19650	-803	.8142172	+19049	-791	.8087841	+20231	-778	.8032732	2.9
3.0	.8487961	+17843	-802	.8441326	+18199	-796	.8393895	+18542	-788	.8345676	+18871	-778	.8296679	+18168	-771	.8246911	3.0
3.1	.8657708	+16643	-769	.8616004	+17008	-764	.8573536	+17365	-769	.8530309	+17714	-753	.8486329	+18054	-750	.8441599	3.1
3.2	.8810812	+16426	-725	.8773674	+15796	-724	.8735812	+16160	-722	.8697228	+16517	-719	.8657925	+16867	-717	.8617905	3.2
3.3	.8948490	+14225	-678	.8915548	+14588	-678	.8881928	+14949	-670	.8847630	+15306	-678	.8812654	+15657	-672	.8777002	3.3
3.4	.9071943	+13096	-628	.9042834	+13404	-628	.9013095	+13755	-630	.8982726	+14104	-638	.8951726	+14493	-636	.8920093	3.4
3.5	.9182346	+11929	-676	.9156716	+12258	-579	.9130507	+12595	-581	.9103718	+12039	-583	.9076346	+13299	-585	.9048389	3.5
3.6	.92980829	+10842	-624	.9258340	+11160	-529	.9235324	+11481	-531	.9211778	+11503	-534	.9187697	+12124	-537	.9163080	3.6
3.7	.9368470	+9824	-474	.9348804	+10123	-478	.9328660	+10423	-482	.9308035	+10726	-485	.9286924	+11030	-489	.9265325	3.7
3.8	.9446287	+8870	-427	.9429145	+9147	-431	.9411573	+9428	-434	.9393566	+9709	-438	.9375121	+9993	-442	.9356235	3.8
3.9	.9515234	+7982	-351	.9500339	+8238	-385	.9485058	+8495	-389	.9469388	+8756	-393	.9453325	+9020	-397	.9436866	3.9
4.0	.9576199	+7163	-339	.9563295	+7395	-343	.9550048	+7629	-347	.9536454	+7871	-351	.9522509	+8112	-354	.9508210	4.0
4.1	.9630001	+6407	-300	.9618856	+6619	-304	.9607406	+6833	-308	.9595649	+7052	-311	.9583581	+7273	-315	.9571197	4.1
4.2	.9677396	+5717	-265	.9667798	+5909	-266	.9657931	+6103	-270	.9647792	+6300	-273	.9637378	+6499	-275	.9626686	4.2
4.3	.9719074	+5088	-233	.9710831	+5259	-236	.9702353	+5435	-239	.9693635	+5612	-242	.9684676	+5794	-245	.9675471	4.3
4.4	.9755664	+4519	-204	.9748605	+4671	-206	.9741340	+4827	-209	.9733866	+4987	-212	.9726180	+5140	-215	.9718278	4.4
4.5	.9787735	+4002	-178	.9781708	+4140	-180	.9775500	+4378	-183	.9769110	+4420	-185	.9762535	+4566	-188	.9755771	4.5
4.6	.9815804	+3539	-165	.9810671	+3659	-157	.9805382	+3783	-159	.9799934	+3909	-161	.9794324	+4036	-164	.9788551	4.6
4.7	.9840334	+3123	-134	.9835975	+3228	-136	.9831481	+3338	-138	.9826849	+3449	-140	.9822077	+3564	-142	.9817163	4.7
4.8	.9861741	+2749	-116	.9858051	+2844	-118	.9854242	+2938	-119	.9850315	+3037	-121	.9846266	+3138	-123	.9842095	4.8
4.9	.9880399	+2418	-100	.9877283	+2500	-102	.9874065	+2584	-103	.9870744	+2669	-104	.9867319	+2759	-106	.9863787	4.9
5.0	.9896639	+2120	-86	.9894015	+2191	-87	.9891304	+2265	-89	.9888504	+2340	-90	.9885614	+2417	-91	.9882633	5.0
5.1	.9910759	+1890	-75	.9908556	+1922	-75	.9906278	+1922	-76	.9903924	+2051	-78	.9901492	+2117	-78	.9898982	5.1
5.2	.9923019	+1626	-64	.9921175	+1679	-64	.9919267	+1735	-66	.9917293	+1791	-67	.9915253	+1843	-67	.9913146	5.2
5.3	.9933653	+1429	-55	.9932115	+1498	-56	.9930521	+1515	-56	.9928871	+1564	-57	.9927165	+1615	-57	.9925401	5.3
5.4	.9942867	+1240	-48	.9941587	+1278	-47	.9940260	+1319	-48	.9938885	+1361	-48	.9937462	+1405	-49	.9935989	5.4
5.5	.9950841	+1078	-39	.9949781	+1114	-41	.9948680	+1160	-41	.9947538	+1187	-42	.9946354	+1223	-43	.9945129	5.5
5.6	.9957737	+940	-35	.9956861	+969	-35	.9955950	+999	-35	.9955004	+1029	-35	.9954023	+1062	-36	.9953006	5.6
5.7	.9963693	+816	-30	.9962972	+841	-31	.9962221	+867	-31	.9961441	+895	-30	.9960630	+921	-30	.9959789	5.7
5.8	.9968833	+709	-26	.9968242	+750	-26	.9967625	+751	-26	.9966983	+778	-25	.9966316	+799	-26	.9965623	5.8
5.9	.9973264	+613	-21	.9972782	+632	-22											

u	p = 3.5		p = 3.6		p = 3.7		p = 3.8		p = 3.9		p = 4.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
0.0			0.0000000			0.0000000			0.0000000			0.0000000			0.0			
0.1	+2555	+11	-0.000114	+2104	+8	-0.000087	+1728	+6	-0.000066	+1419	+5	-0.000051	+1162	+4	-0.000039	+931	+3	0.1
0.2	+9364	+114	-0.002332	+8108	+95	-0.001902	+7012	+78	-0.001551	+6050	+64	-0.001264	+5212	+53	-0.001029	+4484	+42	0.2
0.3	+18965	+393	-0.012658	+17033	+336	-0.010729	+12529	+288	-0.009086	+13647	+246	-0.007689	+12181	+210	-0.006503	+10551	+173	0.3
0.4	+429	+9	-0.040017	+47183	+8	-0.034815	+1199	+7	-0.030268	+13860	+5	-0.026295	+1567	+5	-0.022828	+1732	+4	0.4
0.5	+2897	+843		+26745	+473		+24515	+604		+22604	+576		+20717	+565		+18560	+443	0.5
0.6	-1378	+12		-954	+11		-924	+10		-821	+9		-725	+8		-630	+7	0.6
0.7	+37645	+1414	-0.0094121	+35473	+1269	-0.0083516	+38347	+1143	-0.0074054	+31280	+1026	-0.0065618	+29278	+921	-0.0058103	+27349	+826	0.7
0.8	-2442	+14	-0.0183698	+42974	+1845	-0.165564	+40223	+1959	-0.149120	+38442	+1643	-0.134219	+35139	+1499	-0.120727	+34309	+1286	0.8
0.9	+43857	+2016		+3749	+11		+464	+10		+2348	+10		+923	+9		+1799	+9	0.9
1.0	+47211	+2578	-0.0315349	+46010	+2395	-0.287877	+44719	+2923	-0.262628	+43356	+2060	-0.239439	+41937	+1910	-0.218160	+40470	+1767	1.0
1.1	-2827	+9	-0.0493010	+47193	+2885	-0.454909	+46224	+2684	-0.419492	+45741	+2321	-0.386596	+44352	+2363	-0.356063	+43877	+2216	1.1
1.2	+47738	+3036		+2001	+9		+2498	+9		+2361	+8		+2181	+8		+2022	+8	1.2
1.3	-2197	+9	-0.0717864	+45745	+3189	-0.668465	+45781	+3031	-0.622097	+45650	+2575	-0.578605	+45346	+2729	-0.537843	+44922	+2585	1.3
1.4	+45785	+3302		-2099	+5		-2150	+5		-2182	+5		-2211	+5		-2214	+5	1.4
1.5	+2015	+4																1.5
1.6	+41783	+3513	-0.0088593	+42483	+3376	-0.0927852	+42688	+3241	-0.0870352	+42377	+3108	-0.0815960	+43029	+2977	-0.0764545	+42753	+2848	1.6
1.7	-1481	+1	-0.1301780	+1558	+2	-0.1230227	+1846	+2	-0.1161984	+1774	+2	-0.1096944	+1841	+2	-0.1035000	+1907	+2	1.7
1.8	+36317	+3522		+3749	+3416		+38459	+3310		+33339	+3203		+40971	+3696		+40957	+2989	1.8
1.9	-951	-1	-0.1652422	+1079	-1	-0.1571061	-1199	-0	-0.1492946	-1306	-0	-0.1417999	-1403	-0	-0.1346142	-1491	-1	1.9
2.0	+29900	+3394		+31373	+3322		+2721	+3246		+33977	+3169		+35110	+3089		+36130	+3098	2.0
2.1	-492	-3	-0.2034437	+1010	-2	-0.1944626	-726	-2	-0.1857885	-842	-2	-0.1774164	-953	-2	-0.1693414	-1059	-2	2.1
2.2	+23001	+3195		+34651	+3113		+2677	+3070		+27782	+3029		+29195	+2971		+30515	+2941	2.2
2.3	-85	-9	-0.2441133	+11794	+2820	-0.2344468	+1343	+1	-0.2250606	+1162	+1	-0.2159525	+1035	+1	-0.2071200	+935	+1	2.3
2.4	+15916	+2832		+129	-4		+1910	+2803		+2162	+2781		+29747	+2757		+32483	+2727	2.4
2.5	+231	-4					+34	-4		-63	-4		-162	-3		-266	-3	2.5
2.6	+9952	+2455	-0.2865623	+11038	+2465	-0.2763820	+12777	+2472	-0.2664489	+14479	+2475	-0.2567633	+16136	+2472	-0.2473249	+17746	+2465	2.6
2.7	+453	+6	-0.3301149	+4388	+5	-0.3195499	+1505	+5	-0.3092851	+1221	+5	-0.2991877	+1338	+5	-0.2893044	+1533	+5	2.7
2.8	+29048	+2048		+4666	+2072		+2012	+2102		+8017	+2124		+9663	+2141		+11472	+2153	2.8
2.9	-624	-6	-0.3741341	+668	-6	-0.3633428	+505	-6	-0.3529230	+442	-6	-0.3425784	+372	-6	-0.3324121	+303	-6	2.9
3.0	-2690	+1634		+1678	+5		+428	+1716		+1997	+1792		+3562	+1783		+5121	+1811	3.0
3.1	+721	-5	-0.4180397	+678	-5	-0.4073335	+640	-5	-0.3967606	+589	-5	-0.3863253	+541	-5	-0.3760319	+480	-5	3.1
3.2	-7542	+1294		+1294	+4		+1326	+1542		+1376	+1575		+1419	+1602		+1512	+1650	3.2
3.3	+799	-5	-0.4613193	+743	-4	-0.4507388	+742	-4	-0.4402548	+688	-4	-0.4298724	+636	-4	-0.4195965	+582	-4	3.3
3.4	-11329	+856		+10641	+912		+9424	+965		+8177	+1016		+6966	+1065		+6151	+1109	3.4
3.5	+772	-4		+758			+748			+727			+707			+688		3.5
3.6	-15244	+616	-0.5035348	+14858	+570	-0.4932017	-13246	+627	-0.4829313	-12193	+680	-0.4727289	-11197	+781	-0.4625996	-9990	+779	3.6
3.7	+734		-0.5443237	+742		-0.5343400	+735		-0.5243885	+736		-0.5144747	+729		-0.5046037	+716		3.7
3.8	-17925	+216		-17149	+270		-16333	+322		-15474	+377		-14579	+429		-13849	+477	3.8
3.9	+639		-0.5833977	+697		-0.5738450	+709		-0.5642983	+708		-0.5547626	+711		-0.5452429	+707		3.9
4.0	-1917	-42		+19335	+10		-18711	+60		-18047	+110		-17340	+120		-16596	+130	4.0
4.1	+622		-0.6205382	+630	+10	-0.6114789	+636	+10	-0.6024034	+599	+10	-0.5933165	+554	+10	-0.5842225	+512	+10	4.1
4.2	-21287	-254		-20885	-209		-20449	-162		-19953	-114		-19430	-71		-18865	-24	4.2
4.3	+522	-425	-0.6555902	+670	-383	-0.6467068	+690	-342	-0.6385132	+599	-302	-0.6299274	+620	-260	-0.6213156	+631	-220	4.3
4.4	-22105	+476		-21861	-383		-21079	-342		-21260	-302		-20900	-260		-20593	-220	4.4
4.5	+476			+494			+618			+640			+534			+572		4.5
4.6	-22447	-555	-0.6884561	-22343	-520	-0.6805008	-22292	-485	-0.6724970	-22027	-449	-0.6644483	-21816	-412	-0.6563584	-21671	-378	4.6
4.7	+490		-0.7190877	+422		-0.7117124	+444		-0.7042781	+460		-0.6967876	+481		-0.6892441	+503		4.7
4.8	-22389	-649		-22498	-622		-22383	-590		-22334	-562		-22251	-539		-22136	-499	4.8
4.9	+339		-0.7474790	+353		-0.7406857	+368		-0.7338258	+392		-0.7269018	+410		-0.7199162	+427		4.9
5.0	-22909	-713		-22110	-691		-22149	-664		-22042	-642		-21936	-616		-21824	-589	5.0
5.1	+265		-0.7736593	+250		-0.7674396	+264		-0.7611486	+284		-0.7547884	+297		-0.7483609	+312		5.1
5.2	-21351	-751		-21638	-732		-21701	-713		-21640	-693		-21557	-673		-21504	-652	5.2
5.3	+297		-0.7976858	+229		-0.7920234	+241		-0.7862874	+255		-0.7804793	+270		-0.7746007	+284		5.3
5.4	-20495	-765		-20740	-760		-20967	-738		-21178	-721		-21363	-705		-21530	-689	5.4
5.5	+154			+166			+186			+198			+215			+232		5.5
5.6	-19401	-760	-0.8196383	-19780	-750	-0.8145105	-20654	-741	-0.8093086	-20811	-723	-0.8040339	-20554	-717	-0.7986875	-20779	-705	5.6
5.7	+106		-0.8396128	+120		-0.8349922	+133		-0.8302987	+148		-0.8255331	+164		-0.8206964	+175		5.7
5.8	-18382	-742		-18709	-735		-19006	-729		-19301	-721		-19541	-711		-19850	-700	5.8
5.9	+64		-0.8577173	+64		-0.8535733	+75		-0.8493587	+87		-0.8450742	+99		-0.8407203	+108		5.9
6.0	-17209	-713		-17544	-705		-17871	-705		-18187	-699		-18495	-694		-18793	-690	6.0
6.1	+30		-0.8740674	+41		-0.8703673	+53		-0.8666000	+64		-0.8627658	+72		-0.8588649	+85		6.1
6.2	-16096	-675		-16347	-674		-16683	-672		-17013	-669		-17337	-668		-17651	-663	6.2
6.3	+13		-0.8887828	+13		-0.8854930	+21		-0.8821400	+31		-0.8787237	+36		-0.8752444	+47		6.3
6.4	-14700	-633		-15133	-633		-15474	-633		-15808	-632		-16136	-631		-16462	-630	6.4
6.5	-19			-19			-19			-19			-19			-19		6.5
6.6	-18606	-587	-0.9019845	-18393	-588	-0.8990713	-14271	-589	-0.8960992	-14601	-590	-0.8930680	-14928	-591	-0.8899777	-15260	-592	6.6
6.7	-36		-0.9137923	-28		-0.9112225	-24		-0.9085983	-15		-0.9059195	-15		-0.9031860	-15		6.7
6.8	-12446	-539		-12767	-542		-13089	-544		-13409	-546		-13729	-548		-14049	-549	6.8
6.9	+45		-0.9243234	+42		-0.9220648	+42		-0.9197565	+47		-0.9173981	+54		-0.9149894	+60		6.9
7.0	-11335	-492		-11642	-496		-11948	-498		-12256	-501		-12564	-503		-12871	-506	7.0
7.1	-57		-0.9336903	-52		-0.9317123	-51		-0.9296891	-57		-0.9276203	-64		-0.9255507	-70		7.1
7.2	-10279	-445		-10566	-449		-10857	-452		-11148	-455		-11439	-459		-11733	-462	7.2
7.3	+34		-0.9420006	+34		-0.9402741	+34</											







u	p = 4.0			p = 4.1			p = 4.2			p = 4.3			p = 4.4			p = 4.5	
	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	u
0.0	0.000000		0	0.000000			0.000000			0.000000			0.000000			0.000000	0
0.1	0.000039	+951		0.000029	+779		0.000022	+636		0.000017	+514		0.000013	+423		0.000010	0.1
0.2	0.0001029	+4484	+42	0.0000837	+3921	+86	0.0000680	+3302	+29	0.0000552	+2827	+24	0.0000449	+2416	+20	0.0000364	0.2
0.3	0.0006503	+10851	+175	0.0005496	+6948	+182	0.0004640	+5948	+150	0.0003914	+5295	+111	0.0003301	+4723	+94	0.0002782	0.3
0.4	0.002828	+1732	+4	0.0019803	+11629	+4	0.0017168	+10336	+4	0.0014872	+9338	+4	0.0012876	+8447	+4	0.0011140	0.4
0.5	0.0058103	+27349	+926	0.0051414	+25496	+749	0.0045465	+25725	+661	0.0040177	+22936	+692	0.0035481	+20433	+528	0.0031313	0.5
0.6	0.0120727	+34809	+1286	0.0108521	+33929	+1172	0.0097487	+31269	+1065	0.0087518	+29540	+970	0.0078519	+27964	+882	0.0070420	0.6
0.7	0.0218160	+40470	+1767	0.0198648	+38971	+1638	0.0180769	+37451	+1509	0.0164399	+35917	+1392	0.0149421	+34359	+1283	0.0135726	0.7
0.8	0.0356063	+43877	+2216	0.0327746	+42923	+2073	0.0301502	+41701	+1939	0.0277197	+40525	+1511	0.0254703	+39389	+1692	0.0233901	0.8
0.9	0.0537843	+44922	+2585	0.0499667	+44399	+2447	0.0463936	+43763	+2313	0.0430520	+43045	+2186	0.0399289	+42248	+2062	0.0370120	0.9
1.0	0.0764545	+43753	+2848	0.0715978	+43756	+2722	0.0670133	+43644	+2599	0.0626888	+43425	+2480	0.0586123	+43104	+2363	0.0547721	1.0
1.1	0.1035000	+40687	+2989	0.0976045	+41191	+2883	0.0919974	+41556	+2778	0.0866681	+41817	+2674	0.0816061	+41973	+2571	0.0768013	1.1
1.2	0.1364142	+36139	+3008	0.1277293	+37087	+2929	0.1211371	+37833	+2943	0.1148291	+38299	+2768	0.1087972	+39104	+2670	0.1030328	1.2
1.3	0.1693414	+30514	+2914	0.1615578	+31749	+2859	0.1540601	+32870	+2801	0.1468425	+33902	+2755	0.1398987	+34543	+2677	0.1332226	1.3
1.4	0.2071200	+24283	+2727	0.1985603	+25792	+2695	0.1902701	+27069	+2662	0.1822461	+28356	+2624	0.1748485	+29502	+2592	0.1669811	1.4
1.5	0.2473249	+17746	+2465	0.2381330	+19397	+2459	0.2291870	+20899	+2443	0.2204853	+22256	+2429	0.2120265	+23643	+2410	0.2038807	1.5
1.6	0.2893044	+12985	+2153	0.2796364	+12871	+2164	0.2701848	+14428	+2169	0.2609501	+16948	+2174	0.2519328	+17425	+2173	0.2431328	1.6
1.7	0.3324121	+85121	+1811	0.3224269	+6670	+1837	0.3126254	+6203	+1858	0.3030097	+9717	+1876	0.2935816	+11211	+1893	0.2843428	1.7
1.8	0.3760319	+5227	+1459	0.3658844	+427	+1694	0.3558863	+2348	+1528	0.3460410	+3797	+1658	0.3363515	+5239	+1585	0.3268205	1.8
1.9	0.4195965	+1491	+1189	0.4094315	+615	+1156	0.3993820	+374	+1195	0.3894520	+164	+1233	0.3796453	+299	+1271	0.3699657	1.9
2.0	0.4625996	+9990	+779	0.4525482	+845	+829	0.4425797	+7677	+874	0.4326986	+6447	+917	0.4229092	+5279	+959	0.4132157	2.0
2.1	0.5046037	+13649	+477	0.4947804	+12085	+626	0.4850097	+10855	+675	0.4752965	+10605	+619	0.4656452	+9516	+664	0.4560603	2.1
2.2	0.5452429	+16596	+209	0.5357441	+15817	+255	0.5262708	+16001	+903	0.5168278	+14152	+343	0.5074196	+13271	+894	0.4980508	2.2
2.3	0.5842225	+18585	+84	0.5751261	+19263	+21	0.5660318	+17825	+64	0.5569439	+16951	+109	0.5478669	+16243	+151	0.5388050	2.3
2.4	0.6213156	+20503	+572	0.6126818	+20968	+177	0.6040303	+19298	+139	0.5953649	+19991	+96	0.5866899	+18580	+68	0.5780091	2.4
2.5	0.6563584	+21571	+693	0.6482307	+21929	+340	0.6400690	+20972	+305	0.6318768	+20622	+267	0.6236579	+20238	+233	0.6154157	2.5
2.6	0.6892441	+22136	+427	0.6816507	+21990	+406	0.6740105	+21813	+438	0.6663265	+21692	+404	0.6586021	+21369	+375	0.6508402	2.6
2.7	0.7199162	+22274	+589	0.7128717	+22245	+565	0.7057707	+22184	+537	0.6986160	+22096	+510	0.6914103	+21979	+489	0.6841563	2.7
2.8	0.7483609	+22949	+652	0.7418682	+22939	+630	0.7353125	+22655	+609	0.7286959	+22715	+587	0.7220206	+22765	+564	0.7152889	2.8
2.9	0.7746007	+21530	+689	0.7686532	+21677	+672	0.7626385	+21951	+655	0.7565583	+21994	+637	0.7504144	+21985	+620	0.7442085	2.9
3.0	0.7986875	+20779	+786	0.7932705	+20986	+691	0.7877844	+21177	+650	0.7822303	+21349	+665	0.7766097	+21508	+652	0.7709239	3.0
3.1	0.8206964	+19850	+705	0.8157892	+20105	+694	0.8108126	+20346	+686	0.8057674	+20570	+675	0.8006547	+20779	+664	0.7954756	3.1
3.2	0.8407203	+18793	+690	0.8362974	+19089	+682	0.8318063	+19358	+677	0.8272475	+19929	+669	0.8226218	+19873	+663	0.8179298	3.2
3.3	0.8588649	+17651	+663	0.8548976	+17952	+658	0.8508644	+18259	+656	0.8467656	+18550	+652	0.8426016	+18431	+647	0.8383729	3.3
3.4	0.8752444	+16462	+630	0.8717020	+16781	+629	0.8680967	+17092	+627	0.8644287	+17398	+624	0.8606983	+17699	+623	0.8569056	3.4
3.5	0.8899777	+15250	+592	0.8868283	+15571	+591	0.8836198	+15899	+592	0.8803520	+16202	+591	0.8770252	+16511	+591	0.8736393	3.5
3.6	0.9031860	+14049	+549	0.9003975	+14366	+551	0.8975539	+14689	+552	0.8946551	+14993	+553	0.8917010	+15302	+554	0.8886915	3.6
3.7	0.9149894	+12871	+606	0.9125301	+13176	+608	0.9100200	+13474	+610	0.9074589	+13769	+612	0.9048466	+14094	+614	0.9021829	3.7
3.8	0.9255057	+11733	+462	0.9233449	+12026	+464	0.9211377	+12322	+467	0.9188837	+12616	+470	0.9165828	+12912	+473	0.9142345	3.8
3.9	0.9348487	+10645	+418	0.9329571	+10927	+422	0.9310232	+11203	+424	0.9290469	+11486	+427	0.9270278	+11766	+431	0.9249656	3.9
4.0	0.9431269	+9623	+377	0.9414766	+9888	+381	0.9397882	+10144	+383	0.9380615	+10407	+386	0.9362962	+10678	+390	0.9344918	4.0
4.1	0.9504428	+8602	+337	0.9490078	+8902	+340	0.9475388	+9145	+344	0.9460354	+9390	+347	0.9444973	+9638	+351	0.9429241	4.1
4.2	0.9568925	+7767	+299	0.9556488	+7988	+302	0.9543749	+8214	+306	0.9530703	+8441	+316	0.9517346	+8669	+313	0.9503676	4.2
4.3	0.9625655	+6944	+265	0.9614910	+7146	+269	0.9603896	+7349	+272	0.9592611	+7559	+275	0.9581050	+7767	+278	0.9569211	4.3
4.4	0.9675441	+6186	+233	0.9666186	+6389	+237	0.9656694	+6535	+240	0.9646962	+6749	+243	0.9636987	+6938	+246	0.9626766	4.4
4.5	0.9719041	+5493	+204	0.9711093	+5658	+208	0.9702937	+5826	+211	0.9694571	+6093	+214	0.9685991	+6171	+217	0.9677194	4.5
4.6	0.9757148	+4865	+179	0.9750342	+4815	+182	0.9743354	+5014	+184	0.9736182	+5316	+186	0.9728824	+5642	+189	0.9721276	4.6
4.7	0.9790388	+4298	+156	0.9784576	+4429	+157	0.9778607	+4564	+160	0.9772477	+4799	+163	0.9766185	+4940	+166	0.9759727	4.7
4.8	0.9819330	+3788	+135	0.9814381	+3904	+136	0.9809296	+4023	+139	0.9804072	+4145	+142	0.9798706	+4285	+144	0.9793197	4.8
4.9	0.9844484	+3328	+116	0.9840282	+3432	+118	0.9835962	+3537	+120	0.9831522	+3644	+122	0.9826959	+3753	+124	0.9822272	4.9
5.0	0.9866310	+2918	+100	0.9862751	+3068	+101	0.9859091	+3161	+103	0.9855328	+3197	+105	0.9851459	+3294	+107	0.9847483	5.0
5.1	0.9885217	+2556	+86	0.9882212	+2636	+88	0.9879119	+2716	+89	0.9875937	+2797	+93	0.9872665	+2882	+92	0.9869301	5.1
5.2	0.9901569	+2231	+74	0.9899037	+2299	+74	0.9896431	+2370	+76	0.9893749	+2443	+78	0.9890989	+2516	+79	0.9888151	5.2
5.3	0.9915690	+1943	+63	0.9913563	+1943	+63	0.9911373	+2003	+65	0.9909118	+2128	+66	0.9906797	+2194	+68	0.9904408	5.3
5.4	0.9927868	+1692	+54	0.9926086	+1743	+64	0.9924250	+1796	+65	0.9922359	+1859	+66	0.9920411	+1906	+67	0.9918407	5.4
5.5	0.9938354	+1468	+45	0.9936866	+1514	+47	0.9935331	+1660	+47	0.9933750	+1698	+48	0.9932119	+1654	+49	0.9930441	5.5
5.6	0.9947372	+1273	+38	0.9946132	+1311	+40	0.9944852	+1350	+40	0.9943533	+1391	+41	0.9942173	+1434	+42	0.9940772	5.6
5.7	0.9955117	+1101	+32	0.9954087	+1135	+34	0.9953023	+1169	+34	0.9951925	+1202	+34	0.9950793	+1236	+35	0.9949626	5.7
5.8	0.9961761	+953	+28	0.9960907	+980	+28	0.9960025	+1009	+28	0.9959115	+1049	+29	0.9958175	+1070	+29	0.9957206	5.8
5.9	0.9967452	+826	+23	0.9966747	+845	+24	0.9966018	+870	+24	0.9965265	+896	+25	0.9964487	+922	+25	0.9963685	5.9
6.0	0.9972323	+768	+20	0.9971742	+728	+20	0.9971141	+749	+21	0.9970519	+769	+21	0.9969877	+791	+21	0.9969215	6.0

u	p = 4.5		p = 4.6		p = 4.7		p = 4.8		p = 4.9		p = 5.0		u				
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		
0	—	—	-0000000	—	—	-0000000	—	—	-0000000	—	—	-0000000	—	—	0		
1	+344	—	-0000008	+279	—	-0000006	+227	—	-0000004	+185	—	-0000003	+156	—	1		
2	+2064 +2158	+15	-0000295	+1761 +1967	+13	-0000239	+1499 +1644	+12	-0000193	+1278 +1692	+10	-0000156	+1084 +1550	+8	-0000126	+920 +1413	+6
3	+5940 +1999	+86	-0002343	+5240 +1986	+68	-0001971	+4613 +1848	+66	-0001658	+4059 +1896	+48	-0001393	+3588 +1828	+42	-0001170	+3133 +1739	+33
4	+11815 +12928	+227 +5	-0009631	+16693 +1324	+196 +5	-0008318	+10670 +1384	+177 +4	-0007182	+8738 +1442	+152	-0006198	+7875 +1458	+133	-0005347	+7085 +1522	+112
5	+18916 +218	+473 +8	-0027618	+17482 +805	+421 +6	-0024344	+18127 +569	+374 +5	-0021444	+14866 +765	+334 +4	-0018878	+13670 +823	+297	-0016609	+12559 +921	+264
6	+20286 +32551	+802 +1185	-0063087	+24660 +31333	+725 +1698	-0056497	+23144 +29833	+658 +999	-0050565	+21655 +28561	+605 +918	-0045228	+20285 +26910	+539 +844	-0040430	+18554 +25511	+489
7	+28251 +1423	+1185 +8	-0123216	+31333 +1249	+7	-0111794	+29833 +1671	+8	-0101371	+28561 +965	+6	-0091866	+26910 +741	+844 +5	-0083205	+25511 +680	+5
8	+38044 +1555	+1579 +7	-0214678	+38767 +1728	+1469 +6	-0196924	+53451 +593	+1868 +8	-0180538	+34132 +1466	+1271 +6	-0165423	+32969 +1921	+1183 +8	-0151491	+31488 +1169	+6
9	+41832 +2629	+1945 +5	-0342896	+40453 +1958	+1832 +5	-0317505	+59371 +1724	+1724 +5	-0293837	+59371 +1724	+1621 +5	-0271789	+53778 +1523	+1523 +5	-0251265	+36279 +1436	+9
1.0	+42601 +1977	+2250 +4	-0511569	+49193 +1957	+2146 +4	-0477557	+41617 +1928	+2634 +4	-0445579	+40970 +1891	+1931 +4	-0415533	+40255 +1832	+1832 +4	-0387318	+39487 +1734	+4
1.1	+42602 -1773	+2469 +2	-0722434	+41617 -1797	+2371 +2	-0679226	+41353 -1809	+2273 +2	-0638291	+41353 -1868	+2177 +3	-0599532	+41299 -1868	+2084 +3	-0562858	+40611 -1758	+4
1.2	+39583 -1458	+2561 +1	-0975275	+39983 -1511	+2508 +1	-0922730	+40244 -1558	+2424 +1	-0872609	+40434 -1661	+2341 +1	-0824829	+40633 -1628	+2259 +1	-0779309	+40547 -1652	+1
1.3	+35657 -1199	+2613	-1268078	+36437 -1199	+2548	-1206478	+37995 -1244	+2483	-1147361	+37995 -1244	+2415	-1090659	+35141 -1380	+2356	-1036307	+35351 -1229	+2
1.4	+30691 -730	+2641	-1597318	+31737 -813	+2498	-1527321	+32702 -892	+2456	-1459774	+33586 -976	+2402	-1394629	+34387 -1037	+2352	-1331836	+35109 -1163	+2
1.5	+24965 -389	+2386	-1958295	+26224 -389	+2303	-1880866	+27417 -349	+2338	-1805773	+28541 -329	+2366	-1732986	+29507 -763	+2275	-1662474	+30584 -1090	+2
1.6	+18959 -76	+2168	-235496	+20247 -156	+2127	-2261828	+21583 -227	+2153	-2180313	+22876 -306	+2140	-2100940	+24104 -387	+2129	-2023696	+25679 -455	+2
1.7	+12677 +130	+1964	-2752944	+14114 +115	+1913	-2664373	+15322 +40	+1921	-2577723	+16893 +80	+1925	-2492998	+18224 +91	+1924	-2410197	+19519 +166	+2
1.8	+675 +375	+1611	-3174506	+4095 +321	+1633	-3082440	+10561 +266	+1633	-2992026	+10858 +213	+1668	-2903280	+12235 +145	+1683	-2816217	+13073 +86	+2
1.9	+1049 +525	+1363	-3604164	+2399 +481	+1337	-3510008	+8746 +441	+1363	-3417215	+5992 +383	+1393	-3325815	+8427 +344	+1415	-3235830	+7753 +294	+2
2.0	-4654 +615	+999	-4036221	-2817 +688	+1637	-3941322	-1568 +531	+1673	-3847496	-914 +621	+1167	-3754777	+645 +486	+1137	-3663196	+2267 +446	+2
2.1	-8541 +665	+707	-4465461	-7445 +645	+749	-4371068	-6331 +634	+788	-4277463	-5189 +611	+826	-4184684	-4051 +682	+864	-4092769	-2893 +556	+2
2.2	-12363 +684	+436	-4887256	-11425 +376	+479	-4794483	-10480 +482	+521	-4702231	-9473 +559	+561	-4610540	-8465 +609	+690	-4519449	-7487 +582	+2
2.3	-15601 +664	+195	-5297626	-14729 +664	+236	-5207438	-13929 +870	+278	-5117526	-13908 +664	+317	-5027931	-12241 +658	+556	-4938692	-11359 +651	+2
2.4	-17075 +628	-18	-5693267	-17369 +838	+21	-5606464	-16728 +641	+62	-5519723	-16659 +648	+99	-5433081	-15359 +649	+137	-5346576	-14630 +647	+2
2.5	-19821 +583	-196	-6071539	-16363 +699	-159	-5988762	-18886 +699	-124	-5905861	-18372 +608	-88	-5828272	-17828 +618	-63	-5739830	-17254 +625	-18
2.6	-21084 +518	-346	-6430443	-20781 +484	-316	-6352174	-20443 +556	-378	-6273627	-20677 +525	-245	-6194835	-19670 +519	-213	-6115830	-19263 +582	-181
2.7	-21835 +458	-437	-6768566	-21658 +354	-428	-6695141	-21454 +482	-406	-6621316	-21421 +425	-373	-6547119	-20901 +469	-345	-6472577	-20673 +486	-315
2.8	-22139 +383	-641	-7085031	-22070 +409	-619	-7016654	-21981 +417	-493	-6947784	-21969 +437	-473	-6878442	-21727 +449	-446	-6808654	-21561 +467	-422
2.9	-22943 +317	-660	-7379426	-22677 +353	-686	-7316186	-22091 +353	-563	-7252383	-22078 +366	-542	-7188038	-22044 +356	-523	-7123170	-21985 +401	-561
3.0	-21637 +257	-637	-7651744	-21753 +274	-622	-7593627	-21846 +287	-606	-7534904	-21921 +305	-601	-7475590	-21975 +326	-576	-7415701	-22068 +336	-557
3.1	-20975 +202	-635	-7902310	-21152 +216	-642	-7849222	-21314 +216	-630	-7795504	-21459 +247	-619	-7741167	-21386 +247	-606	-7686224	-21695 +245	-593
3.2	-20111 +149	-654	-8131724	-20639 +161	-647	-8083503	-20651 +172	-637	-8034645	-20759 +189	-629	-7985158	-20935 +199	-619	-7935053	-21167 +219	-611
3.3	-19104 +107	-643	-8340799	-19385 +118	-636	-8297233	-19616 +128	-631	-8253036	-19857 +140	-625	-8208214	-20085 +150	-610	-8162772	-20309 +165	-610
3.4	-17060 +61	-620	-8530509	-18975 +76	-615	-8491347	-18553 +84	-614	-8451570	-18829 +94	-608	-8411185	-19081 +106	-606	-8370194	-19332 +119	-606
3.5	-16815 +32	-596	-8701944	-17113 +41	-588	-8666908	-17406 +48	-587	-8631284	-17693 +59	-585	-8595075	-17973 +69	-583	-8558283	-18245 +77	-586
3.6	-15008 +6	-554	-8856266	-15918 +18	-554	-8825063	-16211 +18	-555	-8793305	-16567 +16	-555	-8760992	-16796 +23	-554	-8728127	-17084 +32	-552
3.7	-14398 -17	-516	-8994676	-14605 -19	-517	-8967007	-14988 -7	-518	-8938819	-15294 -1	-519	-8910113	-15599 +8	-520	-8880887	-15880 +13	-521
3.8	-13205 -37	-476	-9118388	-13501 -37	-478	-9093953	-13792 -38	-479	-9069039	-14085 -38	-481	-9043644	-14375 -16	-482	-9017767	-14665 -11	-484
3.9	-12049 -59	-435	-9228599	-12330 -42	-437	-9207107	-12615 -44	-446	-9185174	-12615 -39	-442	-9162800	-13179 -34	-444	-9139982	-13461 -32	-447
4.0	-10939 -98	-393	-9326480	-11397 -57	-396	-9307647	-11477 -51	-406	-9288413	-11746 -52	-403	-9268777	-12017 -49	-406	-9248736	-12299 -46	-409
4.1	-9888 -63	-354	-9413154	-10139 -63	-367	-9396710	-10371 -63	-360	-9379906	-10649 -60	-364	-9362737	-10549 -59	-367	-9345201	-11161 -58	-370
4.2	-8909 -67	-317	-9498968	-9134 -66	-326	-9475382	-9367 -66	-324	-9460751	-9667 -66	-327	-9445793	-9547 -65	-330	-9430505	-10688 -63	-333
4.3	-7980 -60	-282	-9557090	-8193 -65	-285	-9544684	-8418 -69	-289	-9531989	-8632 -69	-292	-9519002	-8563 -67	-295	-9505721	-9978 -67	-299
4.4	-7127 -72	-249	-9616296	-7324 -71	-253	-9605573	-7522 -72	-256	-9594595	-7725 -71	-250	-9583358	-7939 -71	-262	-9571859	-8137 -69	-266
4.5	-6348 -68	-219	-9668178	-6524 -85	-222	-9658940	-6708 -68	-225	-9649476	-6880 -69	-228	-9639784	-7098 -70	-233	-9629860	-7204 -70	-235
4.6	-5831 -65	-193	-9713536	-6793 -69	-195	-9705601	-5966 -85	-198	-9697468	-6122 -67	-201	-9689134	-6290 -66	-204	-9680597	-6461 -70	-207
4.7	-4981 -62	-168	-9753102	-6126 -68	-176	-9746306	-6271 -82	-173	-9739338	-5421 -65	-175	-9732194	-6573 -64	-177	-9724873	-5728 -66	-180
4.8	-4385 -58	-146	-9787542	-4522 -60	-148	-9781740	-4054 -59	-150	-9775787	-4757 -82	-152	-9769682	-4924 -59	-155	-9763421	-3951 -64	-158
4.9	-3864 -54	-126	-9817460	-3890 -56	-128	-9812520	-4097 -54	-130	-9807449	-4215 -57	-132	-9802246	-4335 -56	-134	-9796908	-4458 -61	-136
5.0	-3383 -50	-109	-9843398	-3499 -53	-111	-9839203	-3594 -66	-112	-9834896	-3760 -53	-114	-9830475	-3868 -53	-116	-9825937	-3917 -58	-118
5.1	-2968 -45	-93	-9865844	-3057 -49	-95	-9862292	-3148 -47	-97	-9858643	-3240 -49	-98	-9854896	-3334 -50	-100	-9851049	-3480 -54	-102
5.2	-2503 -44	-80	-9885233	-2671 -44	-82	-9882233	-2749 -44	-83	-9879150	-2820 -44	-84	-9875983	-2911 -45	-87	-9872731	-2897 -45	-87
5.3	-2256 -40	-69	-9901951	-2325 -39	-76	-9899425	-2395 -41	-71	-9896828	-2467 -40	-72	-9894159	-2549 -41	-73	-9891416	-2613 -44	-74
5.4	-1965 -37	-58	-9916344	-2023 -36	-69	-9914222	-2063 -37	-60	-9912039	-2143 -37	-60	-9909795	-2295 -40	-62	-9907489	-2271 -40	-63
5.5	-1763 -34	-50	-														



$u$	$p = 4.5$		$p = 4.6$		$p = 4.7$		$p = 4.8$		$p = 4.9$		$p = 5.0$		$u$					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
6.0	-815 -18	-22	.9968531	-839 -18	-22	.9967825	-862 -20	-23	.9967098	-887 -20	-23	.9966349	-914 -22	-23	.9965577	-939 -20	-23	6.0
6.1	-790 -16	-18	.9973366	-719 -18	-18	.9972785	-741 -18	-19	.9972185	-765 -18	-19	.9971566	-782 -20	-19	.9970929	-805 -18	-19	6.1
6.2	-690 -14	-15	.9977482	-618 -16	-15	.9977004	-635 -16	-15	.9976510	-652 -16	-15	.9976001	-671 -15	-16	.9975476	-689 -16	-16	6.2
6.3	-514 -12	-13	.9980980	-527 -13	-13	.9980588	-542 -14	-13	.9980183	-557 -14	-13	.9979765	-572 -16	-13	.9979334	-583 -14	-14	6.3
6.4	-440 -10	-11	.9983951	-452 -12	-11	.9983630	-463 -12	-11	.9983299	-476 -12	-11	.9982957	-489 -14	-11	.9982604	-500 -13	-12	6.4
6.5	-376 -9	-9	.9986470	-335 -11	-9	.9986209	-395 -10	-9	.9985939	-407 -11	-9	.9985660	-418 -12	-9	.9985371	-425 -12	-10	6.5
6.6	-320 -8	-7	.9988604	-323 -10	-7	.9988392	-338 -9	-7	.9988172	-345 -10	-7	.9987945	-356 -10	-8	.9987710	-362 -16	-8	6.6
6.7	-272 -7	-6	.9990410	-279 -9	-6	.9990238	-286 -8	-6	.9990060	-293 -9	-6	.9989876	-302 -8	-7	.9989685	-309 -9	-7	6.7
6.8	-230 -6	-6	.9991937	-237 -8	-6	.9991799	-242 -7	-5	.9991655	-251 -8	-6	.9991506	-255 -7	-6	.9991351	-263 -8	-6	6.8
6.9	-196 -6	-5	.9993227	-202 -7	-5	.9993115	-206 -6	-5	.9992999	-213 -7	-5	.9992879	-215 -6	-5	.9992755	-223 -6	-6	6.9
7.0	-166 -4	-4	.9994315	-171 -5	-4	.9994225	-174 -6	-4	.9994132	-179 -6	-5	.9994036	-182 -5	-5	.9993936	-188 -5	-5	7.0
7.1	-142 -4	-4	.9995232	-145 -4	-4	.9995161	-148 -5	-4	.9995086	-152 -5	-4	.9995009	-155 -4	-4	.9994929	-158 -4	-4	7.1
7.2	-121 -4	-4	.9996004	-123 -4	-4	.9995947	-125 -4	-4	.9995888	-128 -4	-4	.9995827	-131 -4	-4	.9995763	-132 -4	-4	7.2
7.3	-102	-4	.9996653	-104	-4	.9996608	-104	-4	.9996562	-108	-4	.9996514	-112	-4	.9996463	-112	-4	7.3
7.4	-86	-4	.9997200	-86	-4	.9997165	-88	-4	.9997128	-91	-4	.9997089	-94	-4	.9997049	-94	-4	7.4
7.5	-72	-4	.9997658	-76	-4	.9997631	-75	-4	.9997602	-76	-4	.9997572	-78	-4	.9997541	-80	-4	7.5
7.6	-60	-4	.9998043	-63	-4	.9998022	-64	-4	.9998000	-64	-4	.9997977	-66	-4	.9997952	-68	-4	7.6
7.7	-50	-4	.9998366	-53	-4	.9998350	-54	-4	.9998333	-55	-4	.9998314	-54	-4	.9998295	-56	-4	7.7
7.8	-42	-4	.9998637	-45	-4	.9998624	-45	-4	.9998611	-45	-4	.9998597	-44	-4	.9998582	-47	-4	7.8
7.9	-35	-4	.9998863	-37	-4	.9998854	-38	-4	.9998844	-37	-4	.9998833	-37	-4	.9998822	-40	-4	7.9
8.0	-30	-4	.9999052	-30	-4	.9999045	-32	-4	.9999038	-31	-4	.9999030	-32	-4	.9999022	-33	-4	8.0
8.1	-26	-4	.9999211	-24	-4	.9999206	-27	-4	.9999200	-26	-4	.9999194	-27	-4	.9999188	-27	-4	8.1
8.2	-22	-4	.9999343	-20	-4	.9999340	-23	-4	.9999336	-22	-4	.9999332	-23	-4	.9999327	-23	-4	8.2
8.3	-19	-4	.9999454	-17	-4	.9999451	-19	-4	.9999448	-19	-4	.9999445	-20	-4	.9999442	-19	-4	8.3
8.4	-16	-4	.9999546	-15	-4	.9999544	-16	-4	.9999542	-16	-4	.9999540	-17	-4	.9999538	-16	-4	8.4
8.5	-14	-4	.9999623	-13	-4	.9999622	-13	-4	.9999620	-13	-4	.9999619	-14	-4	.9999617	-13	-4	8.5
8.6	-11	-4	.9999687	-11	-4	.9999686	-11	-4	.9999685	-11	-4	.9999684	-12	-4	.9999683	-11	-4	8.6
8.7	-9	-4	.9999740	-9	-4	.9999739	-9	-4	.9999739	-9	-4	.9999739	-10	-4	.9999738	-9	-4	8.7
8.8	-7	-4	.9999784	-7	-4	.9999784	-8	-4	.9999784	-8	-4	.9999784	-8	-4	.9999784	-8	-4	8.8
8.9	-6	-4	.9999821	-6	-4	.9999821	-6	-4	.9999821	-7	-4	.9999821	-7	-4	.9999821	-7	-4	8.9
9.0	-6	-4	.9999852	-6	-4	.9999852	-5	-4	.9999852	-6	-4	.9999853	-6	-4	.9999853	-6	-4	9.0
9.1	-4	-4	.9999877	-4	-4	.9999878	-4	-4	.9999878	-6	-4	.9999878	-4	-4	.9999878	-4	-4	9.1
9.2		-4	.9999898		-4	.9999899		-4	.9999899		-4	.9999899		-4	.9999900		-4	9.2
9.3		-4	.9999916		-4	.9999917		-4	.9999917		-4	.9999917		-4	.9999917		-4	9.3
9.4		-4	.9999930		-4	.9999931		-4	.9999931		-4	.9999932		-4	.9999932		-4	9.4
9.5		-4	.9999942		-4	.9999942		-4	.9999943		-4	.9999944		-4	.9999944		-4	9.5
9.6		-4	.9999952		-4	.9999952		-4	.9999953		-4	.9999954		-4	.9999954		-4	9.6
9.7		-4	.9999961		-4	.9999961		-4	.9999961		-4	.9999962		-4	.9999962		-4	9.7
9.8		-4	.9999968		-4	.9999968		-4	.9999968		-4	.9999968		-4	.9999969		-4	9.8
9.9		-4	.9999973		-4	.9999974		-4	.9999974		-4	.9999974		-4	.9999974		-4	9.9
10.0		-4	.9999978		-4	.9999978		-4	.9999978		-4	.9999979		-4	.9999979		-4	10.0
10.1		-4	.9999982		-4	.9999982		-4	.9999982		-4	.9999983		-4	.9999983		-4	10.1
10.2		-4	.9999985		-4	.9999985		-4	.9999986		-4	.9999986		-4	.9999986		-4	10.2
10.3		-4	.9999988		-4	.9999988		-4	.9999988		-4	.9999988		-4	.9999988		-4	10.3
10.4		-4	.9999990		-4	.9999990		-4	.9999990		-4	.9999990		-4	.9999990		-4	10.4
10.5		-4	.9999992		-4	.9999992		-4	.9999992		-4	.9999992		-4	.9999992		-4	10.5
10.6		-4	.9999993		-4	.9999994		-4	.9999994		-4	.9999994		-4	.9999994		-4	10.6
10.7		-4	.9999994		-4	.9999995		-4	.9999995		-4	.9999995		-4	.9999995		-4	10.7
10.8		-4	.9999995		-4	.9999996		-4	.9999996		-4	.9999996		-4	.9999996		-4	10.8
10.9		-4	.9999996		-4	.9999996		-4	.9999996		-4	.9999996		-4	.9999997		-4	10.9
11.0		-4	.9999997		-4	.9999997		-4	.9999997		-4	.9999997		-4	.9999997		-4	11.0
11.1		-4	.9999997		-4	.9999997		-4	.9999998		-4	.9999998		-4	.9999998		-4	11.1
11.2		-4	.9999998		-4	.9999998		-4	.9999998		-4	.9999998		-4	.9999998		-4	11.2
11.3		-4	.9999998		-4	.9999998		-4	.9999998		-4	.9999998		-4	.9999998		-4	11.3
11.4		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	11.4
11.5		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	11.5
11.6		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	11.6
11.7		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	11.7
11.8		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	11.8
11.9		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4	1.0000000		-4	11.9
12.0		-4	.9999999		-4	.9999999		-4	.9999999		-4	.9999999		-4			-4	12.0
12.1		-4	1.0000000		-4	1.0000000		-4	1.0000000		-4	1.0000000		-4			-4	12.1

u	p = 5.0				p = 5.2				p = 5.4				p = 5.6				p = 5.8				p = 6.0	
	I(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	I(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	I(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	I(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	I(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	I(u, p)	u
0.0	-0000000	—	—	—	-0000000	—	—	—	-0000000	—	—	—	-0000000	—	—	—	-0000000	—	—	—	-0000000	0
0.1	-0000002	+122	—	—	-0000001	+80	—	—	-0000001	+52	—	—	-0000000	+35	—	—	-0000000	+22	—	—	-0000000	0.1
0.2	-0000126	+929	+24	—	-0000082	+661	+16	—	-0000054	+470	+10	—	-0000035	+335	+7	—	-0000022	+239	+5	—	-0000015	0.2
0.3	-0001170	+3133	+142	—	-0000824	+2323	+101	—	-0000578	+1834	+72	—	-0000405	+1396	+51	—	-0000283	+1056	+36	—	-0000197	0.3
0.4	-0005347	+7139	+457	—	-0003969	+4739	+348	—	-0002939	+3438	+262	—	-0002171	+2672	+197	—	-0001600	+2022	+148	—	-0001177	0.4
0.5	-0016609	+12359	+1060	—	-0012834	+10554	+635	—	-0009893	+8825	+656	—	-0007609	+7341	+514	—	-0005839	+6079	+403	—	-0004471	0.5
0.6	-0040430	+24924	+2458	—	-0032553	+24473	+1595	—	-0025672	+18287	+1298	—	-0020388	+12244	+1052	—	-0016157	+10479	+851	—	-0012777	0.6
0.7	-0083205	+42511	+3105	—	-0068144	+22812	+2024	—	-0055688	+20285	+2180	—	-0045411	+17044	+1819	—	-0036951	+16794	+1514	—	-0030010	0.7
0.8	-0151491	+71488	+4402	—	-0126846	+28565	+2804	—	-0105989	+26516	+3248	—	-0088378	+22718	+2775	—	-0073545	+21528	+2368	—	-0061080	0.8
0.9	-0251265	+136279	+6725	—	-0214418	+43402	+6035	—	-0182606	+31705	+4411	—	-0155204	+23388	+3655	—	-0131659	+20955	+3359	—	-0111472	0.9
1.0	-0387318	+22487	+6852	—	-0336009	+37798	+8230	—	-0290931	+33555	+5567	—	-0251420	+34001	+4959	—	-0216868	+31977	+4404	—	-0186721	1.0
1.1	-0562858	+40911	+1073	—	-0495308	+39934	+7272	—	-0435211	+36715	+6613	—	-0381636	+37305	+6992	—	-0334054	+35736	+5415	—	-0291887	1.1
1.2	-0779309	+60457	+1712	—	-0694721	+40334	+6975	—	-0618209	+39330	+7460	—	-0549157	+39069	+8870	—	-0486976	+38083	+6307	—	-0431101	1.2
1.3	-1036307	+83821	+2496	—	-0934378	+39965	+5857	—	-0841037	+39324	+6052	—	-0755747	+39214	+7626	—	-0677981	+38584	+7019	—	-0607226	1.3
1.4	-1331836	+10519	+3202	—	-1213100	+36315	+8754	—	-1103149	+37212	+8354	—	-1001551	+37814	+7917	—	-0907870	+38137	+7475	—	-0821666	1.4
1.5	-1662474	+13054	+3942	—	-1528137	+32345	+6673	—	-1402473	+33327	+6361	—	-1285169	+35032	+8030	—	-1175896	+35965	+7655	—	-1074308	1.5
1.6	-2023696	+15919	+4640	—	-1875519	+27462	+8282	—	-1735624	+29477	+8090	—	-1603819	+31110	+7572	—	-1479887	+32568	+7832	—	-1363586	1.6
1.7	-2410197	+19519	+5338	—	-2250363	+21977	+10633	—	-2098182	+24232	+7678	—	-1953579	+26237	+7470	—	-1816446	+28203	+7323	—	-1686647	1.7
1.8	-2816217	+24159	+6036	—	-2647184	+16188	+6640	—	-2484992	+16657	+6669	—	-2329668	+20982	+6863	—	-2181208	+23147	+6827	—	-2039574	1.8
1.9	-3235830	+29109	+6734	—	-3060194	+10364	+8900	—	-2890459	+12900	+6916	—	-2726739	+15345	+6098	—	-2569117	+17633	+6149	—	-2417645	1.9
2.0	-3663196	+34059	+7432	—	-3483568	+4724	+4687	—	-3308826	+7221	+6071	—	-3139155	+9674	+6225	—	-2974709	+12967	+5349	—	-2815612	2.0
2.1	-4092769	+39009	+8130	—	-3911666	+3671	+31	—	-3734414	+1813	+4084	—	-3561245	+4179	+4291	—	-3392368	+6628	+4472	—	-3227964	2.1
2.2	-4519449	+43959	+8828	—	-4339215	+2537	+2834	—	-4161815	+428	+26	—	-3987514	+968	+8342	—	-3816555	+1267	+3563	—	-3649160	2.2
2.3	-4938692	+48909	+9526	—	-4761435	+1872	+15	—	-4586050	+7813	+2152	—	-4412817	+5635	+2415	—	-4241999	+3095	+2660	—	-4073841	2.3
2.4	-5346576	+53859	+10214	—	-5174129	+13955	+990	—	-5002672	+11492	+1271	—	-4832485	+8741	+1540	—	-4663838	+7545	+1736	—	-4496986	2.4
2.5	-5739830	+58809	+10902	—	-5573728	+16019	+206	—	-5407832	+14677	+476	—	-5242412	+18236	+732	—	-5077732	+11705	+994	—	-4914045	2.5
2.6	-6115830	+63759	+11600	—	-5957308	+18813	+471	—	-5798315	+17261	+219	—	-5639103	+26192	+90	—	-5479921	+14508	+274	—	-5321013	2.6
2.7	-6472577	+68709	+12298	—	-6322575	+22011	+1036	—	-6171537	+19239	+808	—	-6019692	+35181	+560	—	-5867266	+17367	+355	—	-5714486	2.7
2.8	-6808654	+73659	+13000	—	-6667837	+26149	+1491	—	-6525529	+26632	+1290	—	-6381930	+44111	+1098	—	-6237244	+25677	+895	—	-6091672	2.8
2.9	-7123170	+78609	+13702	—	-6991950	+30267	+1842	—	-6858888	+31459	+1669	—	-6724157	+52968	+1496	—	-6587930	+34617	+1317	—	-6450386	2.9
3.0	-7415701	+83559	+14404	—	-7294267	+34365	+2091	—	-7170737	+36828	+1952	—	-7045255	+61456	+1807	—	-6917966	+43611	+1656	—	-6789021	3.0
3.1	-7686224	+88509	+15106	—	-7574573	+38473	+2264	—	-7460658	+41936	+2143	—	-7344594	+70304	+2029	—	-7265031	+52468	+1905	—	-7106503	3.1
3.2	-7935024	+93459	+15808	—	-7833019	+42581	+2356	—	-7728631	+47044	+2260	—	-7621974	+79152	+2173	—	-7561314	+61416	+2076	—	-7402238	3.2
3.3	-8162773	+98409	+16510	—	-8070066	+46729	+2386	—	-7974972	+52151	+2321	—	-7877558	+88000	+2250	—	-7777893	+70714	+2174	—	-7676054	3.3
3.4	-8370194	+103359	+17212	—	-8286415	+50837	+2363	—	-8200272	+57259	+2319	—	-8111811	+96998	+2265	—	-8021082	+61762	+2213	—	-7928139	3.4
3.5	-8558283	+108309	+17914	—	-8482961	+54945	+2299	—	-8405339	+62367	+2372	—	-8325446	+105986	+2239	—	-8243314	+72656	+2203	—	-8158979	3.5
3.6	-8728127	+113259	+18616	—	-8660736	+59053	+2298	—	-8591144	+68475	+2199	—	-8519361	+114874	+2172	—	-8445407	+81544	+2150	—	-8369301	3.6
3.7	-8880887	+118369	+19318	—	-8820873	+63161	+2053	—	-8758775	+73563	+2061	—	-8694596	+123762	+2077	—	-8628341	+90432	+2067	—	-8560018	3.7
3.8	-9017767	+123479	+19920	—	-8964557	+67269	+1945	—	-8909399	+78651	+1956	—	-8852286	+132650	+1950	—	-8793213	+99320	+1961	—	-8732180	3.8
3.9	-9139982	+128589	+20622	—	-90903003	+71377	+1855	—	-9044221	+83749	+1618	—	-8993622	+141538	+1628	—	-8941195	+107618	+1838	—	-8886930	3.9
4.0	-9248736	+133699	+21324	—	-9207425	+75485	+1654	—	-9164461	+89837	+1673	—	-9119824	+150426	+1690	—	-9073498	+116516	+1705	—	-9025467	4.0
4.1	-9345201	+138809	+22026	—	-9309015	+79593	+1505	—	-9271325	+95925	+1528	—	-9232108	+159314	+1545	—	-9191343	+125404	+1567	—	-9149012	4.1
4.2	-9435055	+143919	+22728	—	-9398926	+83701	+1359	—	-9365988	+101013	+1383	—	-9331667	+168202	+1496	—	-9295941	+134292	+1428	—	-9258786	4.2
4.3	-9505721	+149029	+23430	—	-9478260	+87809	+1219	—	-9449580	+106911	+1243	—	-9419657	+177090	+1266	—	-9388467	+143180	+1291	—	-9355985	4.3
4.4	-9571859	+154139	+24132	—	-9548061	+91917	+1066	—	-9523177	+112809	+1111	—	-9497182	+185978	+1135	—	-9470052	+152066	+1169	—	-9441763	4.4
4.5	-9629860	+159249	+24834	—	-9609305	+96025	+963	—	-9587788	+118707	+957	—	-9565284	+194866	+1010	—	-9541770	+160954	+1034	—	-9517222	4.5
4.6	-9680597	+164359	+25536	—	-9662900	+100133	+845	—	-9644356	+124605	+871	—	-9624940	+203754	+894	—	-9604630	+170042	+917	—	-9583404	4.6
4.7	-9724873	+169469	+26238	—	-9709685	+104241	+744	—	-9693753	+129503	+765	—	-9677056	+212642	+787	—	-9659572	+179130	+808	—	-9641279	4.7
4.8	-9763421	+174579	+26940	—	-9750425	+108349	+649	—	-9736780	+134401	+669	—	-9722466	+221530	+689	—	-9707463	+188018	+700	—	-	

u	p = 6.0		p = 6.2		p = 6.4		p = 6.6		p = 6.8		p = 7.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
0.0	—	—	.0000000	—	—	.0000000	—	—	.0000000	—	—	.0000000	—	—	0.0
0.1	+15	—	.0000000	+9	—	.0000000	+6	—	.0000000	+4	—	.0000000	+2	—	0.1
0.2	+167	—	.0000009	+119	—	.0000006	+83	—	.0000004	+58	—	.0000002	+41	—	0.2
0.3	+479	+25	.0000137	+340	+18	.0000095	+244	+12	.0000061	+201	+9	.0000045	+158	+7	0.3
0.4	+885	—	.0000864	+748	—	.0000632	+623	—	.0000466	+518	—	.0000336	+423	—	0.4
0.5	+1182	+110	.0003416	+1825	+82	.0002605	+3436	+69	.0001982	+2739	+46	.0001505	+2128	+35	0.5
0.6	+1672	+110	.0010083	+3416	+244	.0007941	+5833	+189	.0006242	+7279	+148	.0004897	+5223	+113	0.6
0.7	+2357	+25	.0024322	+6167	+552	.0019674	+11970	+443	.0015883	+16244	+354	.0012798	+24509	+282	0.7
0.8	+3292	+110	.0050630	+17040	+225	.0041888	+35383	+1219	.0034591	+81844	+3540	.0028512	+19181	+14	0.8
0.9	+4475	+110	.0094204	+40293	+552	.0079464	+99797	+3219	.0066910	+23583	+984	.0056240	+52230	+34	0.9
1.0	+5917	+3901	.0160474	+93400	+1416	.0137672	+22816	+3934	.0117905	+49292	+2665	.0100802	+12189	+2335	1.0
1.1	+7848	+4888	.0254600	+202274	+4384	.0221696	+46448	+9328	.0192720	+98594	+5910	.0167254	+26737	+3129	1.1
1.2	+10459	+6499	.0381000	+343619	+7909	.0336166	+74438	+16248	.0296129	+152583	+10363	.0260443	+39867	+3940	1.2
1.3	+13915	+8919	.0542832	+543636	+12364	.0484769	+119422	+24330	.0432121	+214104	+17038	.0384599	+32429	+4706	1.3
1.4	+18419	+12119	.0742504	+802925	+18468	.0669950	+173623	+36152	.0603581	+279422	+24222	.0542984	+39278	+6372	1.4
1.5	+24646	+16419	.0980050	+116701	+26970	.0892763	+247249	+50697	.0812083	+379127	+32845	.0737647	+50985	+8886	1.5
1.6	+33275	+21819	.1254657	+164707	+37097	.1152825	+335301	+69810	.1057802	+460221	+44815	.0969295	+62144	+12362	1.6
1.7	+44459	+29119	.1564022	+224314	+50699	.1448388	+446789	+95169	.1339542	+589572	+12633	.1237268	+83479	+16842	1.7
1.8	+58844	+38819	.1904701	+302667	+68770	.1776497	+596555	+129319	.1654849	+780460	+17840	.1539620	+108266	+23091	1.8
1.9	+77819	+51419	.2272343	+402618	+93612	.2133206	+797417	+175133	.2000202	+1046078	+246078	.1873276	+142701	+31601	1.9
2.0	+10459	+68419	.2661960	+524610	+126514	.2513822	+104557	+23572	.2371240	+137077	+31575	.2234233	+182617	+41571	2.0
2.1	+13915	+91419	.3068187	+684257	+17111	.2913169	+137286	+31424	.2763015	+174946	+41436	.2617807	+234506	+54006	2.1
2.2	+18419	+12119	.3485528	+894252	+22525	.3325535	+18421	+40955	.3170238	+24320	+51616	.3018870	+31433	+68423	2.2
2.3	+24646	+16419	.3908571	+119409	+29709	.3746400	+260328	+32258	.3587518	+34462	+41436	.3432098	+41436	+51616	2.3
2.4	+3292	+21819	.4332174	+159419	+39819	.4169628	+34918	+41436	.4009562	+46078	+5886	.3852176	+51616	+68423	2.4
2.5	+4475	+29119	.4751598	+21474	+5310	.4590626	+46078	+6319	.4431353	+5886	+812	.4273991	+72612	+9321	2.5
2.6	+5917	+38819	.5162617	+28273	+7143	.5004964	+6188	+812	.4848279	+72612	+9321	.4692778	+9321	+12362	2.6
2.7	+7848	+4888	.5561574	+36813	+9321	.5408751	+812	+10459	.5256233	+9321	+12362	.5104231	+12362	+1590	2.7
2.8	+10459	+6499	.5945418	+4719	+12362	.5798684	+10459	+13915	.5651672	+12362	+1590	.5504581	+1590	+2095	2.8
2.9	+13915	+8919	.6311703	+5948	+16419	.6172064	+13915	+18419	.6031649	+16419	+21819	.5890640	+18419	+24646	2.9
3.0	+18419	+12119	.6658575	+7505	+21819	.6526785	+18419	+24646	.6393810	+21819	+29119	.6259813	+24646	+31601	3.0
3.1	+24646	+16419	.6984728	+9349	+28273	.6861309	+24646	+31601	.6736383	+28273	+36152	.6610089	+31601	+39819	3.1
3.2	+3292	+21819	.7289361	+11940	+37097	.7174623	+3292	+41436	.7058135	+37097	+49292	.6940014	+41436	+50699	3.2
3.3	+4475	+29119	.7572122	+15484	+4888	.7466182	+4475	+5886	.7358326	+4888	+7904	.7248647	+5886	+9842	3.3
3.4	+5917	+38819	.7833043	+19419	+6319	.7735859	+5917	+812	.7636656	+6319	+10459	.7535508	+812	+13915	3.4
3.5	+7848	+4888	.8072484	+24646	+812	.7983875	+7848	+10459	.7893202	+812	+13915	.7800521	+10459	+18419	3.5
3.6	+10459	+6499	.8291071	+31601	+10459	.8210747	+10459	+13915	.8128362	+13915	+18419	.8043956	+13915	+24646	3.6
3.7	+13915	+8919	.8489641	+39819	+13915	.8417226	+13915	+18419	.8342792	+18419	+24646	.8266364	+18419	+31601	3.7
3.8	+18419	+12119	.8669188	+49292	+18419	.8604242	+18419	+24646	.8537351	+24646	+31601	.8468527	+24646	+39819	3.8
3.9	+24646	+16419	.8830820	+60701	+24646	.8772862	+24646	+31601	.8713056	+31601	+39819	.8651402	+31601	+49292	3.9
4.0	+3292	+21819	.8975718	+7449	+31601	.8924240	+3292	+39819	.8871026	+39819	+49292	.8816070	+39819	+60701	4.0
4.1	+4475	+29119	.9105097	+9049	+39819	.9059582	+4475	+49292	.9012453	+49292	+60701	.8963699	+49292	+7449	4.1
4.2	+5917	+38819	.9220184	+10849	+49292	.9180115	+5917	+60701	.9138560	+60701	+7449	.9095504	+60701	+9049	4.2
4.3	+7848	+4888	.9322190	+12949	+60701	.9287061	+7848	+7449	.9250576	+7449	+9049	.9212718	+7449	+10849	4.3
4.4	+10459	+6499	.9412292	+15349	+7449	.9381616	+10459	+9049	.9349713	+9049	+10849	.9316563	+9049	+12949	4.4
4.5	+13915	+8919	.9491617	+18149	+9049	.9464933	+13915	+10849	.9437146	+10849	+12949	.9408235	+10849	+15349	4.5
4.6	+18419	+12119	.9561238	+21449	+10849	.9538111	+18419	+12949	.9513999	+12949	+15349	.9488883	+12949	+18149	4.6
4.7	+24646	+16419	.9622158	+25349	+12949	.9602185	+24646	+15349	.9581339	+15349	+18149	.9559599	+15349	+21449	4.7
4.8	+3292	+21819	.9675311	+29849	+15349	.9658121	+3292	+18149	.9640162	+18149	+21449	.9621413	+18149	+25349	4.8
4.9	+4475	+29119	.9721561	+34949	+18149	.9706816	+4475	+21449	.9691395	+21449	+25349	.9675281	+21449	+29849	4.9
5.0	+5917	+38819	.9761699	+40749	+21449	.9749091	+5917	+25349	.9735894	+25349	+29849	.9722090	+25349	+34949	5.0
5.1	+7848	+4888	.9796443	+47349	+25349	.9785696	+7848	+29849	.9774438	+29849	+34949	.9762652	+29849	+40749	5.1
5.2	+10459	+6499	.9826446	+54849	+29849	.9817313	+10459	+34949	.9807739	+34949	+40749	.9797708	+34949	+47349	5.2
5.3	+13915	+8919	.9852294	+63249	+34949	.9844556	+13915	+40749	.9836438	+40749	+47349	.9827926	+40749	+54849	5.3
5.4	+18419	+12119	.9874512	+72649	+40749	.9867975	+18419	+47349	.9861111	+47349	+54849	.9853911	+47349	+63249	5.4
5.5	+24646	+16419	.9893569	+83049	+47349	.9888062	+24646	+54849	.9882276	+54849	+63249	.9876202	+54849	+72649	5.5
5.6	+3292	+21819	.9909881	+94449	+54849	.9905254	+3292	+63249	.9900390	+63249	+72649	.9895280	+63249	+83049	5.6
5.7	+4475	+29119	.9923814	+107049	+63249	.9919937	+4475	+72649	.9915860	+72649	+83049	.9911573	+72649	+94449	5.7
5.8	+5917	+38819	.9935693	+121449	+72649	.9932453	+5917	+83049	.9929044	+83049	+94449	.9925458	+83049	+107049	5.8
5.9	+7848	+4888	.9945801	+137849	+83049	.9943101	+7848	+94449	.9940258	+94449	+107049	.9937266	+94449	+121449	5.9
6.0	+10459	+6499	.9954387	+156249	+94449	.9952143	+10459	+107049	.9949778	+107049	+121449	.9947288	+107049	+137849	6.0

u	$p = 5.0$				$p = 5.2$				$p = 5.4$				$p = 5.6$				$p = 5.8$				$p = 6.0$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	u	
6.0	.9965577	-.939 -20 -18	-.93		.9963963	-.992 -21 -20	-.90		.9962254	-.1050 -24 -22	-.99		.9960446	-.1110 -25 -24	-.103		.9958535	-.1172 -27 -24	-.107	.9956517	6.0	
6.1	.9970929	-.802 -18 -16	-.77		.9969596	-.852 -20 -18	-.80		.9968182	-.898 -22 -20	-.83		.9966686	-.949 -23 -22	-.85		.9965104	-.1002 -24 -22	-.90	.9963432	6.1	
6.2	.9975476	-.689 -16 -14	-.85		.9974377	-.727 -18 -16	-.87		.9973212	-.769 -20 -18	-.69		.9971977	-.812 -20 -19	-.72		.9970671	-.858 -22 -20	-.73	.9969289	6.2	
6.3	.9979334	-.598 -14 -12	-.84		.9978431	-.621 -16 -14	-.85		.9977473	-.657 -18 -16	-.88		.9976456	-.692 -19 -18	-.80		.9975380	-.730 -20 -19	-.82	.9974242	6.3	
6.4	.9982604	-.509 -13 -11	-.45		.9981864	-.531 -14 -12	-.46		.9981077	-.558 -16 -14	-.48		.9980243	-.591 -17 -16	-.50		.9979359	-.623 -18 -17	-.82	.9978423	6.4	
6.5	.9985371	-.425 -12 -10	-.37		.9984766	-.453 -13 -11	-.39		.9984123	-.477 -14 -12	-.40		.9983439	-.501 -15 -14	-.41		.9982715	-.529 -16 -14	-.43	.9981947	6.5	
6.6	.9987710	-.362 -10 -9	-.31		.9987217	-.385 -11 -9	-.32		.9986692	-.403 -12 -10	-.33		.9986134	-.428 -11 -10	-.34		.9985542	-.449 -12 -10	-.35	.9984914	6.6	
6.7	.9989685	-.309 -9 -8	-.26		.9989285	-.326 -9 -8	-.26		.9988858	-.341 -10 -9	-.27		.9988403	-.361 -10 -9	-.28		.9987920	-.381 -10 -9	-.29	.9987408	6.7	
6.8	.9991351	-.263 -8 -7	-.22		.9991027	-.276 -8 -7	-.22		.9990680	-.290 -9 -8	-.23		.9990311	-.306 -9 -8	-.23		.9989918	-.321 -9 -8	-.24	.9989501	6.8	
6.9	.9992755	-.223 -6 -5	-.18		.9992493	-.234 -7 -6	-.18		.9992212	-.245 -7 -6	-.19		.9991913	-.258 -7 -6	-.19		.9991595	-.270 -8 -7	-.20	.9991257	6.9	
7.0	.9993936	-.188 -5 -4	-.15		.9993725	-.188 -6 -5	-.15		.9993499	-.208 -6 -5	-.16		.9993257	-.218 -6 -5	-.16		.9993000	-.229 -7 -6	-.16	.9992726	7.0	
7.1	.9994929	-.158 -4 -3	-.12		.9994760	-.167 -5 -4	-.12		.9994578	-.175 -5 -4	-.13		.9994383	-.183 -5 -4	-.13		.9994176	-.193 -6 -5	-.13	.9993955	7.1	
7.2	.9995763	-.132 -4 -3	-.10		.9995628	-.141 -4 -3	-.10		.9995482	-.147 -4 -3	-.11		.9995326	-.155 -4 -3	-.11		.9995159	-.162 -5 -4	-.11	.9994981	7.2	
7.3	.9996463	-.112 -8 -7	-.8		.9996355	-.119 -8 -7	-.8		.9996239	-.124 -8 -7	-.9		.9996114	-.130 -8 -7	-.9		.9995980	-.138 -8 -7	-.9	.9995838	7.3	
7.4	.9997049	-.94 -7 -6	-.7		.9996964	-.100 -7 -6	-.7		.9996872	-.105 -7 -6	-.7		.9996772	-.109 -7 -6	-.7		.9996665	-.114 -7 -6	-.7	.9996551	7.4	
7.5	.9997541	-.80 -6 -5	-.6		.9997473	-.83 -6 -5	-.6		.9997400	-.88 -6 -5	-.6		.9997321	-.91 -6 -5	-.6		.9997236	-.96 -6 -5	-.6	.9997145	7.5	
7.6	.9997952	-.68 -5 -4	-.5		.9997899	-.70 -5 -4	-.5		.9997841	-.73 -5 -4	-.5		.9997779	-.77 -5 -4	-.5		.9997711	-.80 -5 -4	-.5	.9997639	7.6	
7.7	.9998295	-.56 -4 -3	-.4		.9998254	-.59 -4 -3	-.4		.9998209	-.61 -4 -3	-.4		.9998160	-.65 -4 -3	-.4		.9998106	-.66 -4 -3	-.4	.9998049	7.7	
7.8	.9998582	-.47 -3 -2	-.47		.9998550	-.49 -3 -2	-.49		.9998515	-.51 -3 -2	-.51		.9998476	-.55 -3 -2	-.55		.9998435	-.56 -3 -2	-.56	.9998389	7.8	
7.9	.9998822	-.40 -2 -1	-.40		.9998797	-.41 -2 -1	-.41		.9998770	-.43 -2 -1	-.43		.9998740	-.46 -2 -1	-.46		.9998707	-.47 -2 -1	-.47	.9998671	7.9	
8.0	.9999022	-.33 -1 0	-.33		.9999003	-.35 -1 0	-.35		.9998982	-.30 -1 0	-.30		.9998958	-.38 -1 0	-.38		.9998933	-.39 -1 0	-.39	.9998905	8.0	
8.1	.9999188	-.27 -1 0	-.27		.9999174	-.29 -1 0	-.29		.9999158	-.30 -1 0	-.30		.9999140	-.32 -1 0	-.32		.9999120	-.32 -1 0	-.32	.9999098	8.1	
8.2	.9999327	-.23 -1 0	-.23		.9999316	-.24 -1 0	-.24		.9999304	-.25 -1 0	-.25		.9999290	-.27 -1 0	-.27		.9999275	-.27 -1 0	-.27	.9999258	8.2	
8.3	.9999442	-.19 -1 0	-.19		.9999434	-.20 -1 0	-.20		.9999425	-.21 -1 0	-.21		.9999415	-.23 -1 0	-.23		.9999403	-.22 -1 0	-.22	.9999390	8.3	
8.4	.9999538	-.16 -1 0	-.16		.9999532	-.17 -1 0	-.17		.9999525	-.17 -1 0	-.17		.9999517	-.19 -1 0	-.19		.9999509	-.18 -1 0	-.18	.9999499	8.4	
8.5	.9999617	-.13 -1 0	-.13		.9999613	-.14 -1 0	-.14		.9999608	-.14 -1 0	-.14		.9999602	-.16 -1 0	-.16		.9999596	-.15 -1 0	-.15	.9999589	8.5	
8.6	.9999683	-.11 -1 0	-.11		.9999681	-.12 -1 0	-.12		.9999677	-.12 -1 0	-.12		.9999673	-.14 -1 0	-.14		.9999668	-.12 -1 0	-.12	.9999663	8.6	
8.7	.9999738	-.9 -1 0	-.9		.9999737	-.10 -1 0	-.10		.9999734	-.10 -1 0	-.10		.9999731	-.12 -1 0	-.12		.9999728	-.10 -1 0	-.10	.9999723	8.7	
8.8	.9999784	-.8 -1 0	-.8		.9999782	-.8 -1 0	-.8		.9999781	-.8 -1 0	-.8		.9999779	-.10 -1 0	-.10		.9999776	-.8 -1 0	-.8	.9999773	8.8	
8.9	.9999821	-.7 -1 0	-.7		.9999821	-.6 -1 0	-.6		.9999820	-.7 -1 0	-.7		.9999818	-.8 -1 0	-.8		.9999817	-.7 -1 0	-.7	.9999815	8.9	
9.0	.9999853	-.6 -1 0	-.6		.9999852	-.5 -1 0	-.5		.9999852	-.6 -1 0	-.6		.9999851	-.7 -1 0	-.7		.9999850	-.6 -1 0	-.6	.9999848	9.0	
9.1	.9999878	-.4 -1 0	-.4		.9999878	-.4 -1 0	-.4		.9999878	-.4 -1 0	-.4		.9999878	-.8 -1 0	-.8		.9999877	-.5 -1 0	-.5	.9999876	9.1	
9.2	.9999900	-.4 -1 0	-.4		.9999900	-.4 -1 0	-.4		.9999900	-.4 -1 0	-.4		.9999900	-.4 -1 0	-.4		.9999899	-.4 -1 0	-.4	.9999899	9.2	
9.3	.9999917	-.4 -1 0	-.4		.9999918	-.4 -1 0	-.4		.9999918	-.4 -1 0	-.4		.9999918	-.4 -1 0	-.4		.9999918	-.4 -1 0	-.4	.9999917	9.3	
9.4	.9999932	-.4 -1 0	-.4		.9999932	-.4 -1 0	-.4		.9999933	-.4 -1 0	-.4		.9999933	-.4 -1 0	-.4		.9999933	-.4 -1 0	-.4	.9999932	9.4	
9.5	.9999944	-.4 -1 0	-.4		.9999944	-.4 -1 0	-.4		.9999945	-.4 -1 0	-.4		.9999945	-.4 -1 0	-.4		.9999945	-.4 -1 0	-.4	.9999945	9.5	
9.6	.9999954	-.4 -1 0	-.4		.9999954	-.4 -1 0	-.4		.9999955	-.4 -1 0	-.4		.9999955	-.4 -1 0	-.4		.9999955	-.4 -1 0	-.4	.9999955	9.6	
9.7	.9999962	-.4 -1 0	-.4		.9999963	-.4 -1 0	-.4		.9999963	-.4 -1 0	-.4		.9999963	-.4 -1 0	-.4		.9999963	-.4 -1 0	-.4	.9999963	9.7	
9.8	.9999969	-.4 -1 0	-.4		.9999969	-.4 -1 0	-.4		.9999970	-.4 -1 0	-.4		.9999970	-.4 -1 0	-.4		.9999970	-.4 -1 0	-.4	.9999970	9.8	
9.9	.9999974	-.4 -1 0	-.4		.9999975	-.4 -1 0	-.4		.9999975	-.4 -1 0	-.4		.9999975	-.4 -1 0	-.4		.9999976	-.4 -1 0	-.4	.9999976	9.9	
10.0	.9999979	-.4 -1 0	-.4		.9999979	-.4 -1 0	-.4		.9999980	-.4 -1 0	-.4		.9999980	-.4 -1 0	-.4		.9999980	-.4 -1 0	-.4	.9999980	10.0	
10.1	.9999983	-.4 -1 0	-.4		.9999983	-.4 -1 0	-.4		.9999983	-.4 -1 0	-.4		.9999984	-.4 -1 0	-.4		.9999984	-.4 -1 0	-.4	.9999984	10.1	
10.2	.9999986	-.4 -1 0	-.4		.9999986	-.4 -1 0	-.4		.9999986	-.4 -1 0	-.4		.9999987	-.4 -1 0	-.4		.9999987	-.4 -1 0	-.4	.9999987	10.2	
10.3	.9999988	-.4 -1 0	-.4		.9999989	-.4 -1 0	-.4		.9999989	-.4 -1 0	-.4		.9999989	-.4 -1 0	-.4		.9999989	-.4 -1 0	-.4	.9999989	10.3	
10.4	.9999990	-.4 -1 0	-.4		.9999991	-.4 -1 0	-.4		.9999991	-.4 -1 0	-.4		.9999991	-.4 -1 0	-.4		.9999991	-.4 -1 0	-.4	.9999991	10.4	
10.5	.9999992	-.4 -1 0	-.4		.9999992	-.4 -1 0	-.4		.9999993	-.4 -1 0	-.4		.9999993	-.4 -1 0	-.4		.9999993	-.4 -1 0	-.4	.9999993	10.5	
10.6	.9999994	-.4 -1 0	-.4		.9999994	-.4 -1 0	-.4		.9999994	-.4 -1 0	-.4		.9999994	-.4 -1 0	-.4		.9999994	-.4 -1 0	-.4	.9999994	10.6	
10.7	.9999995	-.4 -1 0	-.4		.9999995	-.4 -1 0	-.4		.9999995	-.4 -1 0	-.4		.9999995	-.4 -1 0	-.4		.9999995	-.4 -1 0	-.4	.9999995	10.7	
10.8	.9999996	-.4 -1 0	-.4		.9999996	-.4 -1 0	-.4		.9999996	-.4 -1 0	-.4		.9999996	-.4 -1 0	-.4		.9999996	-.4 -1 0	-.4	.9999996	10.8	
10.9	.9999997	-.4 -1 0	-.4		.9999997	-.4 -1 0	-.4		.9999997	-.4 -1 0	-.4		.9999997	-.4 -1 0	-.4		.9999997	-.4 -1 0	-.4	.9999997	10.9	
11.0	.9999997	-.4 -1 0	-.4		.9999997	-.4 -1 0	-.4		.9999997	-.4 -1 0	-.4		.9999997	-.4 -1 0	-.4		.9999998	-.4 -1 0	-.4	.9999998	11.0	
11.1	.9999998	-.4 -1 0	-.4		.9999998	-.4 -1 0	-.4		.9999998	-.4 -1 0	-.4		.9999998	-.4 -1 0	-.4		.9999998	-.4 -1 0	-.4	.9999998	11.1	
11.2	.9																					





u	p = 7.0			p = 7.2			p = 7.4			p = 7.6			p = 7.8			p = 8.0	
	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	u
0.0	.0000000	—	—	.0000000	—	—	.0000000	—	—	.0000000	—	—	.0000000	—	—	.0000000	0
0.1	.0000000	+2	—	.0000000	+1	—	.0000000	+1	—	.0000000	0	—	.0000000	0	—	.0000000	.1
0.2	.0000002	+7	—	.0000001	+20	—	.0000001	+14	—	.0000000	+11	—	.0000000	+8	—	.0000000	.2
0.3	.0000003	+13	—	.0000002	+27	—	.0000001	+22	—	.0000001	+15	—	.0000000	+12	—	.0000000	.3
0.4	.0000245	+25	—	.0000179	+52	+18	.0000130	+44	+13	.0000094	+31	+9	.0000068	+24	+7	.0000049	.4
0.5	.0001141	+49	+86	.0000863	+149	+66	.0000652	+113	+51	.0000491	+83	+39	.0000370	+122	+30	.0000277	.5
0.6	.0003834	+78	+138	.0002996	+314	+179	.0002337	+260	+142	.0001819	+215	+112	.0001414	+173	+88	.0001097	.6
0.7	.0010293	+111	+225	.0008263	+619	+398	.0006622	+489	+317	.0005297	+415	+258	.0004231	+359	+209	.0003373	.7
0.8	.0023459	+145	+309	.0019268	+1149	+722	.0015798	+807	+603	.0012931	+702	+503	.0010567	+609	+418	.0008621	.8
0.9	.0047188	+189	+425	.0039525	+2327	+1189	.0033051	+1260	+1015	.0027592	+1071	+864	.0022997	+949	+733	.0019136	.9
1.0	.0086035	+242	+544	.0073309	+4898	+1780	.0062364	+3169	+2499	.0052968	+2462	+1949	.0044917	+2063	+1585	.0038030	1.0
1.1	.0144916	+322	+762	.0125361	+10999	+2468	.0108274	+7813	+6043	.0093370	+5961	+4592	.0080395	+4598	+3519	.0069118	1.1
1.2	.0228698	+425	+1099	.0200512	+24680	+3298	.0175532	+20985	+15927	.0153433	+15927	+12262	.0133918	+12262	+9498	.0116714	1.2
1.3	.0341786	+553	+1499	.0303275	+56991	+4391	.0268726	+43911	+33991	.0237760	+33991	+26262	.0210061	+26262	+20062	.0185328	1.3
1.4	.0487760	+716	+2042	.0437523	+129991	+6179	.0391905	+129991	+99991	.0350552	+99991	+76991	.0313130	+76991	+59991	.0279322	1.4
1.5	.0669098	+929	+2839	.0606081	+299991	+15179	.0548251	+299991	+229991	.0495271	+229991	+176991	.0446816	+176991	+136991	.0402573	1.5
1.6	.0887002	+1216	+3999	.0810620	+699991	+40999	.0739846	+699991	+539999	.0674378	+539999	+409999	.0613916	+409999	+309999	.0558169	1.6
1.7	.1141335	+1589	+5499	.1051504	+1599991	+85999	.0967527	+1599991	+1269999	.0889150	+1269999	+949999	.0816119	+949999	+709999	.0748176	1.7
1.8	.1430658	+2069	+7499	.1327792	+3599991	+119999	.1230841	+3599991	+2869999	.1139611	+2869999	+2169999	.1053900	+2169999	+1669999	.0973498	1.8
1.9	.1752351	+2716	+10099	.1637331	+7999991	+1699999	.1528103	+7999991	+6599999	.1424538	+6599999	+5099999	.1326493	+5099999	+3999999	.1233817	1.9
2.0	.2102797	+3589	+13499	.1976906	+17999991	+2399999	.1856514	+17999991	+14699999	.1741559	+14699999	+11399999	.1631961	+11399999	+8699999	.1527625	2.0
2.1	.2477605	+4649	+18099	.2342446	+40999991	+32999999	.2212350	+40999991	+32999999	.2087315	+32999999	+25499999	.1967322	+25499999	+19999999	.1852333	2.1
2.2	.2871845	+6049	+24099	.2729256	+90999991	+45999999	.2591174	+90999991	+74999999	.2457655	+74999999	+56999999	.2328732	+56999999	+43999999	.2204729	2.2
2.3	.3280295	+7949	+31999	.3132245	+209999991	+619999999	.2988065	+209999991	+1699999999	.2847858	+1699999999	+1309999999	.2711704	+1309999999	+1009999999	.2579672	2.3
2.4	.3697653	+10599	+42999	.3546161	+469999991	+1799999999	.3397853	+469999991	+3799999999	.3252864	+3799999999	+2949999999	.3111317	+2949999999	+2249999999	.2973317	2.4
2.5	.4118742	+14299	+58999	.3965794	+1299999991	+6499999999	.3815323	+1299999991	+10499999999	.3667491	+10499999999	+8299999999	.3522447	+8299999999	+6399999999	.3380329	2.5
2.6	.4538668	+18499	+80999	.4386149	+3099999991	+17999999999	.4235408	+3099999991	+24999999999	.4086624	+24999999999	+19999999999	.3939966	+19999999999	+15499999999	.3795589	2.6
2.7	.4952949	+24299	+109999	.4802589	+6999999991	+41999999999	.4653341	+6999999991	+58999999999	.4505391	+58999999999	+45999999999	.4358916	+45999999999	+35999999999	.4214084	2.7
2.8	.5357606	+31999	+144999	.5210941	+15999999991	+104999999999	.5064773	+15999999991	+146999999999	.4919286	+146999999999	+113999999999	.4774658	+113999999999	+87999999999	.4631062	2.8
2.9	.5749219	+41999	+194999	.5607566	+36999999991	+249999999999	.5465859	+36999999991	+339999999999	.5324274	+339999999999	+264999999999	.5182983	+264999999999	+204999999999	.5042155	2.9
3.0	.6124956	+54999	+264999	.5989401	+82999999991	+569999999999	.5853314	+82999999991	+799999999999	.5716856	+799999999999	+619999999999	.5580189	+619999999999	+489999999999	.5443474	3.0
3.1	.6482569	+71999	+354999	.6353967	+189999999991	+1299999999999	.6224429	+189999999991	+1899999999999	.6094101	+1899999999999	+1499999999999	.5963130	+1499999999999	+1149999999999	.5831665	3.1
3.2	.6820382	+94999	+479999	.6699360	+429999999991	+2999999999999	.6577077	+429999999991	+4299999999999	.6453658	+4299999999999	+3399999999999	.6329236	+3399999999999	+2649999999999	.6203940	3.2
3.3	.7137245	+124999	+649999	.7024222	+969999999991	+6699999999999	.6909684	+969999999991	+9699999999999	.6793741	+9699999999999	+7699999999999	.6676503	+7699999999999	+5999999999999	.6558086	3.3
3.4	.7432494	+164999	+889999	.7327696	+2199999999991	+15499999999999	.7221200	+2199999999991	+21999999999999	.7113097	+21999999999999	+17499999999999	.7003479	+17499999999999	+13499999999999	.6892441	3.4
3.5	.7705892	+219999	+1199999	.7609377	+4999999999991	+34999999999999	.7511044	+4999999999991	+49999999999999	.7410964	+49999999999999	+38999999999999	.7309214	+38999999999999	+29999999999999	.7205870	3.5
3.6	.7957570	+289999	+1649999	.7869251	+11499999999991	+80999999999999	.7779050	+11499999999991	+114999999999999	.7687020	+114999999999999	+89999999999999	.7593220	+89999999999999	+69999999999999	.7497711	3.6
3.7	.8187970	+379999	+2199999	.8107641	+25999999999991	+184999999999999	.8025412	+25999999999991	+259999999999999	.7941322	+259999999999999	+199999999999999	.7855414	+199999999999999	+154999999999999	.7767733	3.7
3.8	.8397785	+499999	+2949999	.8325143	+58999999999991	+429999999999999	.8250624	+58999999999991	+589999999999999	.8174252	+589999999999999	+459999999999999	.8096057	+459999999999999	+359999999999999	.8016070	3.8
3.9	.8587905	+659999	+3999999	.8522574	+134999999999991	+969999999999999	.8455420	+134999999999991	+1349999999999999	.8386455	+1349999999999999	+1049999999999999	.8315698	+1049999999999999	+809999999999999	.8243167	3.9
4.0	.8759367	+869999	+5399999	.8700917	+309999999999991	+2249999999999999	.8640723	+309999999999991	+3099999999999999	.8578787	+3099999999999999	+2249999999999999	.8515117	+2249999999999999	+1749999999999999	.8449722	4.0
4.1	.8913309	+1149999	+7299999	.8861276	+699999999999991	+5199999999999999	.8807594	+699999999999991	+6999999999999999	.8752260	+6999999999999999	+5199999999999999	.8695273	+5199999999999999	+3999999999999999	.8636633	4.1
4.2	.9050932	+1549999	+9699999	.9004831	+1599999999999991	+11999999999999999	.8957190	+1599999999999991	+15999999999999999	.8908000	+15999999999999999	+11999999999999999	.8857253	+11999999999999999	+9099999999999999	.8804944	4.2
4.3	.9173467	+2049999	+12999999	.9132808	+3699999999999991	+27999999999999999	.9090725	+3699999999999991	+36999999999999999	.9047204	+36999999999999999	+27999999999999999	.9002234	+27999999999999999	+20999999999999999	.8955804	4.3
4.4	.9282146	+2699999	+17499999	.9246442	+8299999999999991	+62999999999999999	.9209435	+8299999999999991	+82999999999999999	.9171106	+82999999999999999	+62999999999999999	.9131440	+62999999999999999	+48999999999999999	.9090424	4.4
4.5	.9378180	+3549999	+23499999	.9346959	+18999999999999991	+144999999999999999	.9314553	+18999999999999991	+189999999999999999	.9280944	+189999999999999999	+144999999999999999	.9246114	+144999999999999999	+110999999999999999	.9210045	4.5
4.6	.9462739	+4649999	+31499999	.9435548	+42999999999999991	+329999999999999999	.9407289	+42999999999999991	+429999999999999999	.9377942	+429999999999999999	+329999999999999999	.9347489	+329999999999999999	+254999999999999999	.9315910	4.6
4.7	.9536945	+5999999	+41999999	.9513355	+96999999999999991	+749999999999999999	.9488809	+96999999999999991	+969999999999999999	.9463288	+969999999999999999	+749999999999999999	.9436770	+749999999999999999	+569999999999999999	.9409239	4.7
4.8	.9608153	+7799999	+55999999	.9581464	+219999999999999991	+1699999999999999999	.9560225	+219999999999999991	+2199999999999999999	.9538116	+2199999999999999999	+1699999999999999999	.9515178	+1699999999999999999	+1309999999999999999	.9491212	4.8
4.9	.9658454	+10199999	+74999999	.9640894	+499999999999999991	+3899999999999999999	.9622584	+499999999999999991	+4999999999999999999	.9603503	+4999999999999999999	+3899999999999999999	.9583633	+3899999999999999999	+2999999999999999999	.9562956	4.9
5.0	.9707663	+13499999	+98999999	.9692593	+1149999999999999991	+8899999999999999999	.9676863	+1149999999999999991	+11499999999999999999	.9660455	+11499999999999999999	+8899999999999999999	.9643352	+8899999999999999999	+6899999999999999999	.9625535	5.0
5.1	.9750323	+17999999	+131999999	.9737433	+2												

u	p = 8.0		p = 8.2		p = 8.4		p = 8.6		p = 8.8		p = 9.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
0			0			0			0			0			0
0.1			0			0			0			0			0
0.2	+5		0	+4		0	+3		0	+1		0	+1		0
0.3	+29		0	+19		0	+13		0	+9		0	+9		0
0.4	+39		0	+27		0	+19		0	+11		0	+11		0
0.5	+111		0	+92		0	+74		0	+17		0	+17		0
0.6	+184		0	+142		0	+109		0	+24		0	+24		0
0.7	+263	+6	0	+212		0	+171		0	+33		0	+33		0
0.8	+392	+23	0	+299	+17	0	+237	+13	0	+43	+8	0	+43	+6	0
0.9	+456	+70	0	+397	+55	0	+317	+43	0	+54	+26	0	+54	+26	0
1.0	+545	+129	0	+499	+117	0	+414	+117	0	+66	+72	0	+66	+72	0
1.1	+652	+194	0	+608	+187	0	+517	+187	0	+80	+91	0	+80	+91	0
1.2	+779	+266	0	+727	+266	0	+629	+266	0	+96	+107	0	+96	+107	0
1.3	+927	+346	0	+847	+346	0	+750	+346	0	+114	+119	0	+114	+119	0
1.4	+1096	+434	0	+980	+434	0	+881	+434	0	+134	+124	0	+134	+124	0
1.5	+1287	+531	0	+1127	+531	0	+1024	+531	0	+156	+130	0	+156	+130	0
1.6	+1500	+647	0	+1287	+647	0	+1183	+647	0	+180	+144	0	+180	+144	0
1.7	+1735	+782	0	+1467	+782	0	+1359	+782	0	+206	+162	0	+206	+162	0
1.8	+2003	+937	0	+1668	+937	0	+1544	+937	0	+234	+181	0	+234	+181	0
1.9	+2304	+1112	0	+1892	+1112	0	+1737	+1112	0	+264	+209	0	+264	+209	0
2.0	+2638	+1307	0	+2140	+1307	0	+1949	+1307	0	+296	+248	0	+296	+248	0
2.1	+3006	+1522	0	+2413	+1522	0	+2180	+1522	0	+330	+282	0	+330	+282	0
2.2	+3409	+1757	0	+2712	+1757	0	+2431	+1757	0	+366	+317	0	+366	+317	0
2.3	+3847	+2012	0	+3037	+2012	0	+2702	+2012	0	+404	+354	0	+404	+354	0
2.4	+4321	+2287	0	+3389	+2287	0	+2993	+2287	0	+444	+394	0	+444	+394	0
2.5	+4832	+2582	0	+3768	+2582	0	+3304	+2582	0	+486	+436	0	+486	+436	0
2.6	+5380	+2897	0	+4175	+2897	0	+3635	+2897	0	+530	+480	0	+530	+480	0
2.7	+5966	+3232	0	+4610	+3232	0	+4086	+3232	0	+576	+532	0	+576	+532	0
2.8	+6591	+3587	0	+5073	+3587	0	+4567	+3587	0	+624	+586	0	+624	+586	0
2.9	+7256	+3962	0	+5564	+3962	0	+5068	+3962	0	+674	+640	0	+674	+640	0
3.0	+7962	+4357	0	+6083	+4357	0	+5589	+4357	0	+726	+706	0	+726	+706	0
3.1	+8709	+4772	0	+6630	+4772	0	+6130	+4772	0	+780	+770	0	+780	+770	0
3.2	+9497	+5207	0	+7195	+5207	0	+6691	+5207	0	+836	+836	0	+836	+836	0
3.3	+10326	+5662	0	+7778	+5662	0	+7272	+5662	0	+894	+894	0	+894	+894	0
3.4	+11197	+6137	0	+8379	+6137	0	+7873	+6137	0	+954	+954	0	+954	+954	0
3.5	+12110	+6632	0	+8998	+6632	0	+8494	+6632	0	+1016	+1016	0	+1016	+1016	0
3.6	+13065	+7147	0	+9635	+7147	0	+9135	+7147	0	+1080	+1080	0	+1080	+1080	0
3.7	+14062	+7682	0	+10290	+7682	0	+9799	+7682	0	+1146	+1146	0	+1146	+1146	0
3.8	+15101	+8237	0	+10963	+8237	0	+10487	+8237	0	+1214	+1214	0	+1214	+1214	0
3.9	+16182	+8812	0	+11654	+8812	0	+11199	+8812	0	+1284	+1284	0	+1284	+1284	0
4.0	+17305	+9407	0	+12363	+9407	0	+11934	+9407	0	+1356	+1356	0	+1356	+1356	0
4.1	+18470	+10022	0	+13090	+10022	0	+12692	+10022	0	+1430	+1430	0	+1430	+1430	0
4.2	+19677	+10657	0	+13835	+10657	0	+13473	+10657	0	+1506	+1506	0	+1506	+1506	0
4.3	+20926	+11312	0	+14598	+11312	0	+14277	+11312	0	+1584	+1584	0	+1584	+1584	0
4.4	+22217	+11987	0	+15379	+11987	0	+15104	+11987	0	+1664	+1664	0	+1664	+1664	0
4.5	+23550	+12682	0	+16178	+12682	0	+15953	+12682	0	+1746	+1746	0	+1746	+1746	0
4.6	+24925	+13397	0	+16995	+13397	0	+16824	+13397	0	+1830	+1830	0	+1830	+1830	0
4.7	+26342	+14132	0	+17830	+14132	0	+17717	+14132	0	+1916	+1916	0	+1916	+1916	0
4.8	+27801	+14887	0	+18683	+14887	0	+18632	+14887	0	+2004	+2004	0	+2004	+2004	0
4.9	+29302	+15662	0	+19554	+15662	0	+19559	+15662	0	+2094	+2094	0	+2094	+2094	0
5.0	+30845	+16457	0	+20443	+16457	0	+20504	+16457	0	+2186	+2186	0	+2186	+2186	0
5.1	+32430	+17272	0	+21350	+17272	0	+21469	+17272	0	+2280	+2280	0	+2280	+2280	0
5.2	+34057	+18107	0	+22275	+18107	0	+22454	+18107	0	+2376	+2376	0	+2376	+2376	0
5.3	+35726	+18962	0	+23218	+18962	0	+23459	+18962	0	+2474	+2474	0	+2474	+2474	0
5.4	+37437	+19837	0	+24179	+19837	0	+24484	+19837	0	+2574	+2574	0	+2574	+2574	0
5.5	+39190	+20732	0	+25158	+20732	0	+25529	+20732	0	+2676	+2676	0	+2676	+2676	0
5.6	+40985	+21647	0	+26155	+21647	0	+26594	+21647	0	+2780	+2780	0	+2780	+2780	0
5.7	+42822	+22582	0	+27169	+22582	0	+27679	+22582	0	+2886	+2886	0	+2886	+2886	0
5.8	+44701	+23537	0	+28199	+23537	0	+28774	+23537	0	+2994	+2994	0	+2994	+2994	0
5.9	+46622	+24512	0	+29245	+24512	0	+29879	+24512	0	+3104	+3104	0	+3104	+3104	0
6.0	+48585	+25507	0	+30306	+25507	0	+30994	+25507	0	+3216	+3216	0	+3216	+3216	0



u	p = 8.0		p = 8.2		p = 8.4		p = 8.6		p = 8.8		p = 9.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
6.0	-2085 -42	-163	.9925928	-2191 -45	-169	.9922247	-2302 -47	-176	.9918390	-2416 -50	-182	.9914351	-2536 -50	-189	.9910123	-2660 -52	-196	6.0
6.1	-1786 -38	-137	.9938014	-1876 -40	-143	.9934947	-1973 -43	-148	.9931732	-2073 -43	-154	.9928363	-2176 -45	-160	.9924835	-2283 -48	-165	6.1
6.2	-1527 -34	-115	.9948222	-1605 -37	-126	.9945674	-1637 -37	-124	.9943001	-1772 -40	-129	.9940199	-1890 -41	-134	.9937264	-1954 -42	-139	6.2
6.3	-1390 -31	-96	.9956825	-1367 -32	-106	.9954714	-1438 -33	-104	.9952498	-1511 -35	-108	.9950175	-1589 -36	-112	.9947739	-1667 -38	-117	6.3
6.4	-1105 -28	-80	.9964061	-1163 -27	-88	.9962316	-1222 -30	-87	.9960484	-1285 -31	-96	.9958562	-1340 -33	-94	.9956547	-1418 -35	-97	6.4
6.5	-988 -24	-68	.9970134	-986 -24	-69	.9968696	-1037 -26	-72	.9967185	-1090 -26	-75	.9965600	-1146 -29	-78	.9963937	-1204 -32	-81	6.5
6.6	-792 -21	-56	.9975221	-833 -22	-57	.9974039	-877 -23	-60	.9972796	-921 -24	-62	.9971492	-969 -26	-65	.9970123	-1018 -27	-67	6.6
6.7	-670 -16	-43	.9979475	-703 -20	-47	.9978505	-749 -20	-49	.9977486	-779 -21	-51	.9976415	-818 -21	-53	.9975291	-850 -24	-56	6.7
6.8	-563 -15	-37	.9983024	-603 -17	-39	.9982231	-623 -18	-41	.9981397	-655 -18	-42	.9980520	-688 -19	-44	.9979600	-724 -19	-46	6.8
6.9	-474 -13	-31	.9985981	-495 -14	-32	.9985334	-524 -15	-33	.9984653	-551 -16	-35	.9983937	-579 -18	-36	.9983185	-608 -18	-36	6.9
7.0	-397 -12	-26	.9988440	-416 -11	-26	.9987913	-439 -13	-27	.9987358	-461 -14	-28	.9986775	-484 -13	-30	.9986163	-519 -13	-31	7.0
7.1	-333 -10	-21	.9990481	-349 -10	-21	.9990053	-367 -12	-22	.9989602	-385 -12	-23	.9989129	-405 -11	-24	.9988631	-426 -13	-25	7.1
7.2	-279 -9	-17	.9992173	-292 -9	-17	.9991826	-307 -10	-18	.9991461	-323 -10	-19	.9991077	-339 -10	-20	.9990673	-355 -12	-21	7.2
7.3	-232 -8	-14	.9993573	-244 -7	-14	.9993292	-257 -8	-15	.9992997	-265 -9	-15	.9992686	-282 -9	-16	.9992360	-299 -9	-17	7.3
7.4	-193 -7	-11	.9994729	-203 -6	-12	.9994503	-215 -7	-12	.9994265	-223 -8	-12	.9994014	-234 -8	-13	.9993751	-246 -8	-14	7.4
7.5	-160 -6	-9	.9995683	-168 -6	-9	.9995501	-178 -6	-10	.9995310	-186 -7	-10	.9995108	-194 -7	-11	.9994896	-204 -7	-11	7.5
7.6	-133 -5	-7	.9996469	-139 -6	-7	.9996323	-146 -6	-8	.9996169	-153 -6	-8	.9996007	-161 -6	-9	.9995837	-169 -6	-9	7.6
7.7	-110 -4	-6	.9997115	-116 -4	-6	.9996998	-120 -4	-6	.9996875	-127 -5	-7	.9996745	-133 -5	-7	.9996609	-140 -5	-7	7.7
7.8	-91 -3	-5	.9997646	-95 -3	-6	.9997553	-100 -4	-5	.9997454	-105 -4	-6	.9997351	-109 -4	-5	.9997241	-115 -4	-5	7.8
7.9	-76 -4	-4	.9998082	-79 -4	-4	.9998007	-82 -4	-4	.9997929	-87 -4	-4	.9997846	-90 -4	-4	.9997759	-93 -5	-5	7.9
8.0	-61	-3	.9998438	-65	-3	.9998379	-68	-3	.9998317	-71	-3	.9998251	-74	-4	.9998182	-79	-4	8.0
8.1	-51	-2	.9998730	-53	-2	.9998683	-56	-2	.9998634	-59	-2	.9998581	-60	-2	.9998526	-64	-2	8.1
8.2	-42	-1	.9998969	-44	-1	.9998931	-46	-1	.9998892	-49	-1	.9998851	-50	-1	.9998807	-62	-1	8.2
8.3	-35	-1	.9999163	-36	-1	.9999134	-38	-1	.9999103	-40	-1	.9999070	-41	-1	.9999036	-45	-1	8.3
8.4	-28	-1	.9999322	-30	-1	.9999299	-31	-1	.9999274	-32	-1	.9999248	-33	-1	.9999221	-36	-1	8.4
8.5	-23	-1	.9999451	-24	-1	.9999433	-25	-1	.9999413	-26	-1	.9999393	-27	-1	.9999372	-29	-1	8.5
8.6	-19	-1	.9999556	-20	-1	.9999542	-20	-1	.9999527	-22	-1	.9999511	-22	-1	.9999494	-23	-1	8.6
8.7	-15	-1	.9999641	-16	-1	.9999630	-16	-1	.9999618	-18	-1	.9999606	-18	-1	.9999593	-19	-1	8.7
8.8	-12	-1	.9999710	-13	-1	.9999702	-14	-1	.9999692	-14	-1	.9999683	-16	-1	.9999673	-16	-1	8.8
8.9	-10	-1	.9999766	-11	-1	.9999760	-11	-1	.9999752	-12	-1	.9999745	-12	-1	.9999737	-12	-1	8.9
9.0	-8	-1	.9999812	-9	-1	.9999807	-10	-1	.9999801	-10	-1	.9999795	-9	-1	.9999789	-10	-1	9.0
9.1	-7	-1	.9999848	-7	-1	.9999844	-8	-1	.9999840	-8	-1	.9999836	-8	-1	.9999831	-8	-1	9.1
9.2	-6	-1	.9999878	-6	-1	.9999875	-6	-1	.9999872	-7	-1	.9999868	-6	-1	.9999865	-7	-1	9.2
9.3	-5	-1	.9999902	-6	-1	.9999900	-6	-1	.9999897	-6	-1	.9999895	-6	-1	.9999892	-6	-1	9.3
9.4	-4	-1	.9999921	-4	-1	.9999919	-4	-1	.9999918	-4	-1	.9999916	-4	-1	.9999913	-4	-1	9.4
9.5			.9999937			.9999935			.9999934			.9999933			.9999931			9.5
9.6			.9999949			.9999948			.9999947			.9999946			.9999945			9.6
9.7			.9999959			.9999959			.9999958			.9999957			.9999956			9.7
9.8			.9999968			.9999967			.9999966			.9999965			.9999965			9.8
9.9			.9999974			.9999974			.9999973			.9999973			.9999972			9.9
10.0			.9999979			.9999979			.9999979			.9999978			.9999978			10.0
10.1			.9999983			.9999983			.9999983			.9999983			.9999982			10.1
10.2			.9999987			.9999987			.9999986			.9999986			.9999986			10.2
10.3			.9999989			.9999989			.9999989			.9999989			.9999989			10.3
10.4			.9999992			.9999991			.9999991			.9999991			.9999991			10.4
10.5			.9999993			.9999993			.9999993			.9999993			.9999993			10.5
10.6			.9999995			.9999995			.9999995			.9999995			.9999994			10.6
10.7			.9999996			.9999996			.9999996			.9999996			.9999996			10.7
10.8			.9999997			.9999997			.9999997			.9999997			.9999997			10.8
10.9			.9999997			.9999997			.9999997			.9999997			.9999997			10.9
11.0			.9999998			.9999998			.9999998			.9999998			.9999998			11.0
11.1			.9999998			.9999998			.9999998			.9999998			.9999998			11.1
11.2			.9999999			.9999999			.9999999			.9999999			.9999999			11.2
11.3			.9999999			.9999999			.9999999			.9999999			.9999999			11.3
11.4			.9999999			.9999999			.9999999			.9999999			.9999999			11.4
11.5			.9999999			.9999999			.9999999			.9999999			.9999999			11.5
11.6			.9999999			.9999999			.9999999			.9999999			.9999999			11.6
11.7			1.0000000			1.0000000			1.0000000			1.0000000			1.0000000			11.7

$u$	$p = 9.0$			$p = 9.2$			$p = 9.4$			$p = 9.6$			$p = 9.8$			$p = 10.0$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$u$
.1	.0000000	0	0	.0000000	0	0	.0000000	0	0	.0000000	0	0	.0000000	0	0	.0000000	.1
.2	.0000000	+1	+6	.0000000	+1	+3	.0000000	0	0	.0000000	+4	+10	.0000000	+3	+8	.0000000	.2
.3	.0000001	+7	+35	.0000001	+5	+26	.0000000	+5	+16	.0000000	+4	+10	.0000000	+3	+8	.0000000	.3
.4	.0000009	+49	+91	.0000007	+35	+77	.0000005	+26	+63	.0000004	+18	+56	.0000003	+14	+42	.0000002	.4
.5	.0000065	+180	+211	.0000048	+142	+174	.0000036	+110	+143	.0000026	+88	+116	.0000020	+87	+109	.0000014	.5
.6	.0000301	+523	+761	.0000231	+423	+610	.0000177	+342	+573	.0000136	+274	+424	.0000104	+220	+341	.0000079	.6
.7	.0001060	+1222	+1822	.0000837	+1014	+1469	.0000660	+840	+1212	.0000520	+694	+1029	.0000408	+574	+874	.0000321	.7
.8	.0003041	+3117	+4517	.0002457	+2074	+2988	.0001983	+1421	+2074	.0001598	+1188	+1733	.0001286	+955	+1425	.0001033	.8
.9	.0007460	+8429	+12199	.0006151	+5388	+7732	.0005065	+3533	+5186	.0004164	+2792	+4155	.0003419	+2406	+3577	.0002801	.9
1.0	.0016178	+2180	+3134	.0013577	+1071	+1542	.0011378	+755	+1083	.0009522	+610	+892	.0007958	+484	+714	.0006642	1.0
1.1	.0031763	+5419	+7761	.0027074	+2090	+3011	.0023046	+1462	+2119	.0019590	+1015	+1486	.0016631	+722	+1052	.0014101	1.1
1.2	.0057458	+13899	+20115	.0049661	+3268	+4711	.0042865	+2253	+3282	.0036951	+1541	+2212	.0031812	+1004	+1469	.0027352	1.2
1.3	.0097052	+28191	+41194	.0084936	+5682	+8211	.0074237	+4143	+5954	.0064803	+2618	+3789	.0056497	+1703	+2494	.0049195	1.3
1.4	.0154667	+42198	+61191	.0136893	+8211	+11811	.0121012	+12111	+17411	.0106841	+17111	+25111	.0094215	+25111	+36111	.0082981	1.4
1.5	.0234480	+61191	+88191	.0209673	+11811	+17111	.0187264	+17111	+25111	.0167050	+22111	+32111	.0148842	+32111	+46111	.0132465	1.5
1.6	.0340430	+88191	+131191	.0307269	+17111	+25111	.0277015	+25111	+36111	.0249451	+32111	+46111	.0224373	+46111	+66111	.0201589	1.6
1.7	.0475918	+131191	+191191	.0433243	+25111	+36111	.0393950	+36111	+51111	.0357821	+46111	+66111	.0324647	+66111	+96111	.0294226	1.7
1.8	.0643559	+191191	+281191	.0590456	+36111	+51111	.0541147	+51111	+71111	.0495421	+66111	+96111	.0453075	+96111	+136111	.0413911	1.8
1.9	.0844985	+281191	+411191	.0780860	+51111	+71111	.0720846	+71111	+96111	.0664753	+96111	+136111	.0612395	+136111	+196111	.0563586	1.9
2.0	.1080734	+371191	+541191	.1005355	+71111	+96111	.0934292	+96111	+136111	.0867384	+136111	+196111	.0804471	+196111	+281191	.0745388	2.0
2.1	.1350210	+491191	+711191	.1263728	+96111	+136111	.1181641	+136111	+196111	.1103825	+196111	+281191	.1030153	+281191	+411191	.0960489	2.1
2.2	.1651717	+651191	+961191	.1554658	+136111	+196111	.1461945	+196111	+281191	.1373496	+281191	+411191	.1289218	+411191	+581191	.1209014	2.2
2.3	.1982562	+861191	+1261191	.1875798	+196111	+281191	.1773208	+281191	+396111	.1674750	+396111	+546111	.1580374	+546111	+766111	.1490018	2.3
2.4	.2339209	+1141191	+1661191	.2223905	+281191	+396111	.2112493	+396111	+546111	.2004972	+546111	+766111	.1901327	+766111	+1066111	.1801538	2.4
2.5	.2717457	+1541191	+2161191	.2595015	+396111	+546111	.2476087	+546111	+766111	.2360711	+766111	+1066111	.2248909	+1066111	+1466111	.2140696	2.5
2.6	.3112646	+2011191	+281191	.2984630	+546111	+766111	.2859680	+766111	+1066111	.2737863	+1066111	+1466111	.2619237	+1466111	+1966111	.2503847	2.6
2.7	.3519862	+2611191	+361191	.3387930	+766111	+1066111	.3258564	+1066111	+1466111	.3131860	+1466111	+1966111	.3007900	+1966111	+2666111	.2886758	2.7
2.8	.3934128	+3311191	+451191	.3799962	+1066111	+1466111	.3667837	+1466111	+1966111	.3537867	+1966111	+2666111	.3410154	+2666111	+3566111	.3284797	2.8
2.9	.4350580	+4211191	+571191	.4215826	+1466111	+1966111	.4082582	+1966111	+2666111	.3950973	+2666111	+3566111	.3821118	+3566111	+4766111	.3693128	2.9
3.0	.4764616	+5311191	+711191	.4630831	+1966111	+281191	.4498037	+281191	+396111	.4366366	+396111	+546111	.4235044	+546111	+746111	.4106893	3.0
3.1	.5172017	+6611191	+961191	.5040624	+281191	+396111	.4909732	+396111	+546111	.4779475	+546111	+766111	.4649981	+766111	+1046111	.4521375	3.1
3.2	.5569027	+8211191	+1141191	.5441286	+396111	+546111	.5313600	+546111	+766111	.5186095	+766111	+1066111	.5058899	+1066111	+1466111	.4932136	3.2
3.3	.5952418	+1011191	+1381191	.5829408	+546111	+766111	.5706052	+766111	+1066111	.5582475	+1066111	+1466111	.5458794	+1466111	+1966111	.5335128	3.3
3.4	.6319515	+1221191	+1661191	.6202117	+766111	+1066111	.6084034	+1066111	+1466111	.5965375	+1466111	+1966111	.5846251	+1966111	+2666111	.5726771	3.4
3.5	.6668202	+1461191	+201191	.6557106	+1066111	+1466111	.6445040	+1466111	+1966111	.6332104	+1966111	+2666111	.6218393	+2666111	+3566111	.6104009	3.5
3.6	.6996908	+1741191	+2361191	.6892612	+1466111	+1966111	.6787122	+1966111	+2666111	.6680521	+2666111	+3566111	.6572895	+3566111	+4766111	.6464331	3.6
3.7	.7304571	+2161191	+291191	.7207398	+1966111	+281191	.7108861	+281191	+396111	.7009029	+396111	+546111	.6907977	+546111	+746111	.6805775	3.7
3.8	.7590599	+2611191	+351191	.7500709	+281191	+396111	.7409338	+396111	+546111	.7316542	+546111	+766111	.7222379	+766111	+1046111	.7126910	3.8
3.9	.7854816	+3111191	+411191	.7772229	+396111	+546111	.7688090	+546111	+766111	.7602442	+766111	+1066111	.7515330	+1066111	+1466111	.7426803	3.9
4.0	.8097408	+3711191	+491191	.8022020	+546111	+766111	.7945051	+766111	+1066111	.7866531	+1066111	+1466111	.7786494	+1466111	+1966111	.7704977	4.0
4.1	.8318864	+4411191	+581191	.8250471	+766111	+1066111	.8180502	+1066111	+1466111	.8108977	+1466111	+1966111	.8035919	+1966111	+2666111	.7961354	4.1
4.2	.8519917	+5211191	+691191	.8458234	+1066111	+1466111	.8395010	+1466111	+1966111	.8330254	+1966111	+2666111	.8263981	+2666111	+3566111	.8196207	4.2
4.3	.8701496	+6111191	+811191	.8646177	+1466111	+1966111	.8589373	+1966111	+2666111	.8531087	+2666111	+3566111	.8471325	+3566111	+4766111	.8410096	4.3
4.4	.8864672	+7111191	+941191	.8815326	+1966111	+281191	.8764569	+281191	+396111	.8712399	+396111	+546111	.8658814	+546111	+746111	.8603816	4.4
4.5	.9010613	+8211191	+1081191	.8966822	+281191	+396111	.8921706	+396111	+546111	.8875258	+546111	+766111	.8827473	+766111	+1046111	.8778346	4.5
4.6	.9140549	+9411191	+1261191	.9101878	+396111	+546111	.9061977	+546111	+766111	.9020836	+766111	+1066111	.8978444	+1066111	+1466111	.8934793	4.6
4.7	.9255731	+1071191	+1461191	.9221744	+546111	+766111	.9186625	+766111	+1066111	.9150362	+1066111	+1466111	.9112943	+1466111	+1966111	.9074355	4.7
4.8	.9357412	+1221191	+1661191	.9327676	+766111	+1066111	.9296910	+1066111	+1466111	.9265097	+1466111	+1966111	.9232225	+1966111	+2666111	.9198279	4.8
4.9	.9446816	+1391191	+1881191	.9420914	+1066111	+1466111	.9394080	+1466111	+1966111	.9366298	+1966111	+2666111	.9337554	+2666111	+3566111	.9307831	4.9
5.0	.9525126	+1581191	+211191	.9502657	+1466111	+1966111	.9479353	+1966111	+2666111	.9455198	+2666111	+3566111	.9430174	+3566111	+4766111	.9404267	5.0
5.1	.9593465	+1791191	+2361191	.9574054	+1966111	+281191	.9553900	+281191	+396111	.9529285	+396111	+546111	.9511294	+546111	+746111	.9488811	5.1
5.2	.9652895	+2021191	+271191	.9636191	+281191	+396111	.9618830	+396111	+546111	.9600795	+546111	+766111	.9582070	+766111	+1046111	.9562640	5.2
5.3	.9704400	+2271191	+301191	.9690081	+396111	+546111	.9675183	+546111	+766111	.9659691	+766111	+1066111	.9643592	+1066111	+1466111	.9626869	5.3
5.4	.9748892	+2541191	+331191	.9736662	+546111	+766111	.9723926	+766111	+1066111	.9710669	+1066111	+1466111	.9696880	+1466111	+1966111	.9682543	5.4
5.5	.9787206	+2831191	+361191	.9776797	+766111	+1066111	.9765947	+1066111	+1466111	.9754646	+1466111	+1966111	.9742879	+1966111	+2666111	.9730634	5.5
5.6	.9820099	+3141191	+391191	.9811270	+1066111	+1466111	.9802061	+1466111	+1966111	.9792459	+1966111	+2666111	.9782455	+2666111	+3566111	.9772034	5.6
5.7	.9848256	+3471191	+431191	.9840792	+1466111	+1966111	.9833001	+1966111	+2666111	.9824873	+2666111	+3566111	.9816396	+3566111	+4766111	.9807560	5.7
5.8	.9875291	+3821191	+471191	.9866002	+1966111	+281191	.9859432	+281191	+396111	.9852573	+396111	+546111	.9845416	+546111	+746111	.9837949	5.8
5.9	.9892751	+4191191	+511191	.9887468	+281191	+396111	.9881947	+396111	+546111	.9876178	+546111	+766111	.9870154	+766111			











u	p = 12.0		p = 12.2		p = 12.4		p = 12.6		p = 12.8		p = 13.0		u	
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$
.2													.2	
.3													.3	
.4	+1		.0000000			.0000000			.0000000			.0000000		.4
.5	+3		.0000000	+4		.0000000	+8		.0000000	+2		.0000000	+1	.5
.6	+12		.0000000	+14		.0000000	+16		.0000000	+4		.0000000	+4	.6
.7	+17		.0000004	+25		.0000003	+22		.0000002	+17		.0000002	+11	.7
.8	+61		.0000020	+49		.0000016	+39		.0000012	+31		.0000009	+26	.8
.9	+63		.0000020	+54		.0000016	+44		.0000012	+36		.0000009	+28	.9
1.0	+168	+6	.0000085	+149		.0000068	+146		.0000053	+95		.0000042	+77	1.0
1.1	+133			+110			+92			+81			+73	1.1
1.2	+107	+16	.0000290	+190	+13	.0000234	+287	+11	.0000189	+240	+9	.0000152	+291	1.2
1.3	+209			+190			+167			+149			+130	1.3
1.4	+853	+37	.0000836	+732	+31	.0000687	+827	+26	.0000565	+534	+21	.0000463	+455	1.4
1.5	+305			+281			+252			+260			+208	1.5
1.6	+1819	+77	.0002114	+1489	+66	.0001767	+1212	+55	.0001475	+1058	+47	.0001229	+917	1.6
1.7	+408			+878			+354			+325			+298	1.7
1.8	+2777	+145	.0004796	+2454	+126	.0004066	+2165	+107	.0003443	+1907	+92	.0002912	+1577	1.8
1.9	+490			+467			+440			+415			+384	1.9
2.0	+4432	+250	.0009932	+3971	+218	.0008530	+3351	+190	.0007318	+3171	+186	.0006272	+2855	2.0
2.1	+537			+513			+492			+478			+462	2.1
2.2	+6514	+399	.0019039	+6001	+353	.0016545	+5436	+312	.0014364	+4918	+275	.0012457	+4435	2.2
2.3	+521	+5		+521	+5		+516	+4		+514	+4		+501	2.3
2.4	+9317	+897	.0034147	+8552	+635	.0029996	+7837	+478	.0026323	+7189	+428	.0023077	+6546	2.4
2.5	+446			+465			+449			+487			+493	2.5
2.6	+12466	+845	.0057807	+11571	+765	.0051284	+10718	+691	.0045451	+9912	+624	.0040243	+9139	2.6
2.7	+816	+7		+348	+7		+383	+6		+409	+6		+430	2.7
2.8	+15931	+1138	.0093038	+14938	+1040	.0083290	+13982	+950	.0074491	+13064	+866	.0066559	+12184	2.8
2.9	+186			+180	+7		+235	+7		+275	+6		+285	2.9
3.0	+19329	+1464	.0143207	+18489	+1351	.0129278	+17189	+1249	.0116595	+2465	+1147	.0105059	+15330	3.0
3.1	+82	+7		+82	+7		+89	+7		+96	+6		+104	3.1
3.2	+28051	+1808	.0211871	+22034	+1684	.0192747	+21019	+1567	.0175190	+20914	+1456	.0159089	+19022	3.2
3.3	-394	+6		-243	+6		-176	+6		-116	+6		-66	3.3
3.4	+26266	+2151	.0302569	+26330	+2022	.0277235	+24891	+1898	.0253799	+23421	+1778	.0232141	+22458	3.4
3.5	-626	+5		+456	+5		-394	+5		-327	+5		-207	3.5
3.6	+38953	+2474	.0418597	+28170	+2344	.0386104	+27849	+2218	.0355829	+26501	+2096	.0327651	+23627	3.6
3.7	-714	+3		-859	+3		-598	+4		-543	+4		-477	3.7
3.8	+39303	+2755	.0562795	+30351	+2632	.0522322	+29719	+2510	.0484360	+29038	+2391	.0448788	+28319	3.8
3.9	-860	+2		-826	+2		-815	+2		-713	+2		-609	3.9
4.0	+29243	+2976	.0737344	+31717	+2866	.0688259	+31321	+2755	.0641929	+30962	+2544	.0598244	+30342	4.0
4.1	-946	+0		-920	+0		-989	+0		-856	+1		-807	4.1
4.2	+32214	+8124	.0943610	+32163	+3031	.0885517	+32984	+2938	.0830360	+31880	+2840	.0778022	+31558	4.2
4.3	-982	-3		-968	-2		-953	-2		-931	-1		-913	4.3
4.4	+31401	+8199	.1182039	+31641	+3118	.1114809	+31294	+3043	.1050621	+31867	+2964	.0989398	+31861	4.4
4.5	-946	-4		-958	-4		-958	-3		-957	-3		-947	4.5
4.6	+29642	+3168	.1452109	+30161	+3120	.1375895	+30598	+3068	.1302749	+30947	+3011	.1232615	+31217	4.6
4.7	-874	+5		-896	+5		-916	+4		-927	+4		-937	4.7
4.8	+37005	+8960	.1752340	+27785	+3038	.1667577	+28483	+3010	.1585824	+29709	+2977	.1507049	+29636	4.8
4.9	-747	-6		-747	-6		-817	-6		-846	-6		-867	4.9
5.0	+23529	+2872	.2080356	+24628	+2875	.1987742	+25558	+2872	.1897999	+26407	+2892	.1811119	+27188	5.0
5.1	-893	-7		-843	-6		-780	-6		-720	-6		-760	5.1
5.2	+19635	+2615	.2433000	+29828	+2642	.2333460	+31943	+2860	.2236581	+32294	+2866	.2142377	+32381	5.2
5.3	-424	-6		-471	-5		-527	-5		-573	-5		-614	5.3
5.4	+16595	+2300	.2806472	+16557	+2340	.2701121	+17806	+2387	.2598157	+19009	+2423	.2497616	+20169	5.4
5.5	-241	-4		-302	-4		-349	-4		-403	-4		-454	5.5
5.6	+19921	+1947	.3196501	+11984	+2008	.3086588	+13320	+2087	.2978742	+14621	+2119	.2873015	+15885	5.6
5.7	-510	+5		-519	+5		-575	+5		-646	+5		-724	5.7
5.8	+5910	+1564	.3598514	+7292	+1840	.3485375	+8669	+1712	.3373948	+10907	+1782	.3264299	+11334	5.8
5.9	+90			+41			-7			-57			-111	5.9
6.0	+1289	+1171	.4007819	+2641	+1256	.3892821	+3991	+1338	.3779161	+5336	+1416	.3666917	+6672	6.0
6.1	+230			+185			+142			+90			+57	6.1
6.2	-3102	+782	.4419765	-1825	+872	.4304258	-535	+960	.4189710	+764	+1944	.4076207	+2087	6.2
6.3	+344			+311			+274			+235			+193	6.3
6.4	-7149	+499	.4829886	-5989	+500	.4715160	-4787	+590	.4601023	-3573	+677	.4487564	-2345	6.4
6.5	+429			+408			+340			+347			+319	6.5
6.6	-10787	+62	.5234027	-9727	+151	.5121275	-8859	+239	.5008763	-7563	+328	.4896576	-6438	6.6
6.7	+486			+470			+538			+553			+504	6.7
6.8	-13899	-250	.5628441	-13004	-168	.5518731	-12978	-82	.5408940	-11119	+1	.5299150	-10137	6.8
6.9	+324			+521			+404			+492			+478	6.9
7.0	-16487	-624	.6009851	-16769	-446	.5904109	-14993	-369	.5797998	-14183	-291	.5691597	-13338	7.0
7.1	+537			+584			+535			+522			+517	7.1
7.2	-18548	-764	.6375501	-17867	-685	.6274494	-17373	-616	.6172873	-16783	-643	.6070706	-16222	7.2
7.3	+628			+680			+530			+538			+523	7.3
7.4	-20081	-941	.6723169	-19674	-881	.6627506	-19223	-829	.6531023	-18729	-758	.6433783	-18197	7.4
7.5	+503			+514			+520			+529			+531	7.5
7.6	-21111	-1084	.7051163	-20953	-1034	.6961295	-20053	-983	.6870444	-20213	-989	.6778663	-19501	7.6
7.7	+469			+473			+487			+500			+506	7.7
7.8	-21681	-1187	.7358305	-21557	-1147	.7274531	-21398	-1195	.7189652	-21197	-1062	.7103717	-20959	7.8
7.9	+415			+429			+443			+458			+479	7.9
8.0	-21636	-1253	.7643890	-21633	-1221	.7566371	-21790	-1185	.7487663	-21723	-1164	.7407802	-21617	8.0
8.1	+384			+370			+396			+408			+427	8.1
8.2	-21627	-1284	.7907642	-21729	-1261	.7836415	-21890	-1237	.7763951	-21841	-1211	.7690275	-21848	8.2
8.3	+302			+322			+349			+359			+389	8.3
8.4	-21118	-1287	.8149665	-21893	-1273	.8084659	-21464	-1253	.8018398	-21600	-1237	.7950900	-21719	8.4
8.5	+250			+265			+281			+299			+322	8.5
8.6	-20358	-1265	.8370385	-20611	-1257	.8311439	-20847	-1247	.8251245	-21060	-1236	.8189815	-21250	8.6
8.7	+195			+212			+230			+245			+259	8.7
8.8	-19399	-1224	.8570494	-19707	-1221	.8517372	-20000	-1217	.8463032	-20275	-1212	.8407480	-20531	8.8
8.9	+145			+169			+178			+192			+206	8.9
9.0	-18297	-1167	.8750896	-18297	-1169	.8703305	-18097	-1179	.8654544	-18273	-1170	.8604614	-18506	9.0
9.1	+99			+110			+125			+149			+155	9.1
9.2	-17098	-1099	.8912654	-17467	-1104	.8870261	-17899	-1199	.8826758	-18181	-1113	.8782142	-18522	9.2
9.3	+57			+68			+83			+95			+108	9.3
9.4	-15838	-1023	.9056945	-18222	-1032	.9019388	-18599	-1039	.8980791	-18969	-1048	.8941148	-19332	9.4
9.5	+23			+33			+46			+58			+64	9.5
9.6	-14555	-942	.9185014	-14939	-963	.9151916	-15390	-963	.9117855	-15790	-973	.9082822	-16077	9.6
9.7	-4			+3			+10			+21			+31	9.7
9.8	-13278	-890	.9298144	-13656	-872	.9269124	-14035	-884	.9239219	-14412	-895	.		



u	p = 12.0		p = 12.2		p = 12.4		p = 12.6		p = 12.8		p = 13.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
6.0	-5119 -82	-317	.9810694	-5323 -75	-326	.9802076	-6534 -79	-336	.9793123	-6752 -90	-345	.9783824	-5973 -91	-355	.9774171	-6204 -81	-364	6.0
6.1	-4489 -79	-272	.9841389	-4623 -71	-281	.9834118	-4812 -76	-289	.9826558	-5005 -77	-296	.9818701	-5205 -76	-306	.9810537	-5498 -79	-315	6.1
6.2	-3838 -75	-233	.9867461	-4000 -66	-240	.9861348	-4165 -72	-246	.9854988	-4336 -74	-255	.9848373	-4512 -75	-263	.9841495	-4694 -76	-271	6.2
6.3	-3301 -70	-198	.9889533	-3442 -61	-205	.9884413	-3690 -67	-211	.9879082	-3741 -66	-216	.9873533	-3997 -69	-225	.9867759	-4056 -72	-232	6.3
6.4	-2831 -64	-168	.9908163	-2955 -57	-173	.9903888	-3082 -61	-179	.9899435	-3214 -58	-185	.9894796	-3349 -65	-191	.9889967	-3491 -66	-197	6.4
6.5	-2416 -57	-141	.9923838	-2524 -53	-146	.9920281	-2684 -57	-151	.9916574	-2750 -56	-156	.9912710	-2869 -61	-162	.9908684	-2990 -62	-167	6.5
6.6	-2057 -51	-116	.9936989	-2149 -49	-123	.9934040	-2246 -51	-127	.9930963	-2344 -53	-132	.9927755	-2447 -55	-136	.9924411	-2554 -66	-141	6.6
6.7	-1744 -46	-99	.9947991	-1823 -46	-103	.9945553	-1906 -45	-106	.9943008	-1991 -47	-110	.9940353	-2078 -50	-114	.9937584	-2171 -50	-118	6.7
6.8	-1473 -41	-82	.9957170	-1542 -41	-85	.9955160	-1611 -41	-89	.9953062	-1655 -42	-92	.9950872	-1761 -44	-95	.9948586	-1839 -46	-99	6.8
6.9	-1242 -36	-68	.9964807	-1296 -36	-71	.9963156	-1389 -36	-74	.9961431	-1421 -38	-77	.9959630	-1466 -38	-79	.9957749	-1533 -40	-82	6.9
7.0	-1043 -31	-56	.9971146	-1098 -35	-59	.9969793	-1143 -32	-61	.9968379	-1195 -33	-63	.9966902	-1250 -34	-66	.9965359	-1306 -36	-66	7.0
7.1	-872 -27	-46	.9976392	-913 -30	-48	.9975287	-956 -28	-50	.9974132	-1002 -29	-52	.9972924	-1047 -30	-54	.9971663	-1097 -31	-56	7.1
7.2	-739 -24	-38	.9980725	-764 -24	-40	.9979825	-809 -24	-41	.9978883	-857 -25	-43	.9977899	-877 -26	-45	.9976870	-916 -27	-46	7.2
7.3	-606 -22	-31	.9984294	-635 -19	-32	.9983563	-666 -19	-34	.9982797	-696 -22	-35	.9981997	-729 -22	-36	.9981161	-764 -23	-37	7.3
7.4	-505 -18	-26	.9987228	-529 -16	-26	.9986635	-553 -18	-27	.9986015	-580 -19	-29	.9985366	-607 -20	-30	.9984688	-635 -20	-31	7.4
7.5	-416 -15	-21	.9989633	-437 -15	-21	.9989154	-458 -16	-22	.9988653	-480 -16	-23	.9988128	-502 -17	-24	.9987580	-526 -18	-25	7.5
7.6	-345 -13	-17	.9991601	-361 -13	-17	.9991215	-378 -13	-18	.9990811	-396 -13	-19	.9990388	-415 -14	-20	.9989946	-435 -15	-20	7.6
7.7	-285 -10	-13	.9993208	-297 -11	-14	.9992898	-312 -11	-14	.9992573	-327 -12	-15	.9992233	-343 -12	-15	.9991877	-363 -13	-16	7.7
7.8	-232 -8	-11	.9994518	-246 -9	-11	.9994269	-257 -9	-12	.9994008	-268 -10	-12	.9993735	-281 -11	-13	.9993450	-295 -10	-13	7.8
7.9	-193 -7	-9	.9995582	-200 -7	-9	.9995383	-209 -8	-9	.9995175	-221 -8	-10	.9994956	-230 -8	-10	.9994728	-242 -9	-11	7.9
8.0	-168 -6	-7	.9996446	-164 -6	-7	.9996288	-173 -6	-8	.9996121	-180 -7	-8	.9995947	-190 -6	-8	.9995764	-197 -6	-9	8.0
8.1	-128 -5	-8	.9997146	-134 -5	-8	.9997020	-140 -5	-6	.9996887	-147 -6	-6	.9996748	-153 -6	-6	.9996603	-162 -6	-7	8.1
8.2	-104 -4	-4	.9997712	-109 -4	-5	.9997612	-115 -4	-5	.9997506	-119 -5	-5	.9997396	-126 -5	-5	.9997280	-131 -5	-5	8.2
8.3	-86 -4	-4	.9998169	-90 -4	-4	.9998089	-93 -4	-4	.9998006	-99 -4	-4	.9997918	-102 -4	-4	.9997826	-106 -4	-4	8.3
8.4	-68		.9998536	-71		.9998473	-76		.9998407	-78		.9998338	-82		.9998266	-87		8.4
8.5	-55		.9998832	-59		.9998782	-61		.9998730	-64		.9998676	-68		.9998619	-71		8.5
8.6	-46		.9999069	-46		.9999030	-49		.9998989	-51		.9998946	-53		.9998901	-55		8.6
8.7	-38		.9999260	-38		.9999229	-40		.9999197	-43		.9999163	-44		.9999128	-47		8.7
8.8	-30		.9999412	-31		.9999388	-32		.9999362	-32		.9999336	-33		.9999308	-36		8.8
8.9	-23		.9999533	-24		.9999515	-26		.9999495	-28		.9999474	-28		.9999452	-29		8.9
9.0	-19		.9999630	-19		.9999616	-21		.9999600	-21		.9999584	-22		.9999567	-24		9.0
9.1	-15		.9999708	-15		.9999696	-16		.9999684	-17		.9999672	-19		.9999658	-18		9.1
9.2	-12		.9999769	-12		.9999760	-13		.9999751	-14		.9999741	-14		.9999731	-15		9.2
9.3	-10		.9999818	-10		.9999811	-10		.9999804	-12		.9999796	-11		.9999788	-12		9.3
9.4	-8		.9999856	-8		.9999851	-8		.9999845	-8		.9999840	-9		.9999833	-10		9.4
9.5	-6		.9999887	-7		.9999883	-6		.9999878	-7		.9999874	-7		.9999869	-8		9.5
9.6	-5		.9999911	-5		.9999908	-5		.9999905	-6		.9999901	-6		.9999897	-6		9.6
9.7	-4		.9999930	-4		.9999928	-4		.9999925	-5		.9999923	-5		.9999920	-5		9.7
9.8			.9999945			.9999943			.9999941	-4		.9999939	-4		.9999937	-4		9.8
9.9			.9999957			.9999956			.9999954			.9999953			.9999951			9.9
10.0			.9999966			.9999965			.9999964			.9999963			.9999962			10.0
10.1			.9999974			.9999973			.9999972			.9999971			.9999970			10.1
10.2			.9999980			.9999979			.9999978			.9999978			.9999977			10.2
10.3			.9999984			.9999984			.9999983			.9999983			.9999982			10.3
10.4			.9999988			.9999987			.9999987			.9999986			.9999986			10.4
10.5			.9999990			.9999990			.9999990			.9999990			.9999989			10.5
10.6			.9999993			.9999992			.9999992			.9999992			.9999992			10.6
10.7			.9999994			.9999994			.9999994			.9999994			.9999994			10.7
10.8			.9999995			.9999995			.9999995			.9999995			.9999995			10.8
10.9			.9999997			.9999996			.9999996			.9999996			.9999996			10.9
11.0			.9999997			.9999997			.9999997			.9999997			.9999997			11.0
11.1			.9999998			.9999998			.9999998			.9999998			.9999998			11.1
11.2			.9999998			.9999998			.9999998			.9999998			.9999998			11.2
11.3			.9999999			.9999999			.9999999			.9999999			.9999998			11.3
11.4			.9999999			.9999999			.9999999			.9999999			.9999999			11.4
11.5			.9999999			.9999999			.9999999			.9999999			.9999999			11.5
11.6			.9999999			.9999999			.9999999			.9999999			.9999999			11.6
11.7			1.0000000			1.0000000			1.0000000			1.0000000			1.0000000			11.7

u	p = 13.0		p = 13.2		p = 13.4		p = 13.6		p = 13.8		p = 14.0	
	I(u, p)	$\frac{\delta_u^2}{\delta_p^2}$	I(u, p)	$\frac{\delta_u^2}{\delta_p^2}$	I(u, p)	$\frac{\delta_u^2}{\delta_p^2}$	I(u, p)	$\frac{\delta_u^2}{\delta_p^2}$	I(u, p)	$\frac{\delta_u^2}{\delta_p^2}$	I(u, p)	u
·4	·0000000											·4
·5	·0000000	+1	·0000000	+1	·0000000	+1	·0000000	+1	·0000000	0	·0000000	·5
·6	·0000001	+6	·0000001	+4	·0000001	+3	·0000001	+2	·0000001	+1	·0000001	·6
·7	·0000007	+11	·0000006	+8	·0000005	+7	·0000004	+6	·0000003	+5	·0000002	·7
·8	·0000033	+20	·0000026	+15	·0000021	+12	·0000016	+9	·0000013	+7	·0000010	·8
·9	·0000122	+43	·0000098	+29	·0000079	+21	·0000063	+15	·0000051	+11	·0000041	·9
1.0	·0000380	+63	·0000311	+41	·0000254	+27	·0000208	+19	·0000169	+13	·0000138	1.0
1.1	·0001024	+88	·0000852	+58	·0000708	+39	·0000588	+26	·0000488	+18	·0000404	1.1
1.2	·0002461	+115	·0002077	+77	·0001752	+50	·0001476	+34	·0001242	+23	·0001044	1.2
1.3	·0005370	+148	·0004592	+99	·0003924	+61	·0003349	+41	·0002855	+28	·0002432	1.3
1.4	·0010792	+189	·0009340	+127	·0008076	+80	·0006976	+53	·0006019	+35	·0005189	1.4
1.5	·0020210	+239	·0017683	+162	·0015456	+103	·0013497	+67	·0011775	+43	·0010263	1.5
1.6	·0035596	+298	·0031456	+199	·0027772	+125	·0024495	+81	·0021585	+53	·0019004	1.6
1.7	·0059415	+367	·0052988	+248	·0047213	+156	·0042029	+98	·0037380	+65	·0033215	1.7
1.8	·0094577	+448	·0085064	+317	·0076439	+200	·0068627	+127	·0061559	+84	·0055170	1.8
1.9	·0144339	+541	·0130841	+396	·0118501	+261	·0107232	+171	·0096950	+111	·0087580	1.9
2.0	·0212147	+647	·0193709	+487	·0176723	+320	·0161090	+210	·0146716	+141	·0133514	2.0
2.1	·0301450	+766	·0277114	+594	·0254531	+400	·0233597	+260	·0214210	+171	·0196273	2.1
2.2	·0415491	+909	·0384353	+719	·0355263	+498	·0328114	+320	·0302799	+200	·0279219	2.2
2.3	·057092	+1077	·0518365	+852	·0481955	+600	·0447757	+390	·0415667	+250	·0385583	2.3
2.4	·0728466	+1280	·0681533	+999	·0637145	+760	·0595203	+500	·0555609	+320	·0518266	2.4
2.5	·0931058	+1517	·0875519	+1182	·0822694	+920	·0772500	+600	·0724847	+390	·0679648	2.5
2.6	·1165431	+1780	·1101133	+1419	·1039654	+1050	·0980924	+700	·0924871	+450	·0871419	2.6
2.7	·1431211	+2179	·1358269	+1718	·1288175	+1280	·1220878	+850	·1156325	+550	·1094456	2.7
2.8	·1727086	+2706	·1645879	+2087	·1567474	+1580	·1491840	+1050	·1418943	+680	·1348744	2.8
2.9	·2050854	+3381	·1962016	+2516	·1875857	+1950	·1792370	+1300	·1711541	+850	·1633350	2.9
3.0	·2399527	+4146	·2303911	+2997	·2210787	+2370	·2120165	+1600	·2032053	+1000	·1946452	3.0
3.1	·2769455	+5001	·2668103	+3542	·2568994	+2820	·2472160	+1900	·2377625	+1200	·2285412	3.1
3.2	·3156492	+5946	·3050582	+4167	·2946622	+3350	·2844659	+2300	·2744735	+1500	·2646888	3.2
3.3	·3556161	+6991	·3446963	+4872	·3339387	+3900	·3233495	+2700	·3129342	+1700	·3026979	3.3
3.4	·3963828	+8146	·3852651	+5647	·3742749	+4400	·3634194	+3100	·3527052	+2000	·3421385	3.4
3.5	·4374865	+9411	·4263011	+6492	·4152079	+5000	·4042147	+3600	·3933288	+2500	·3825573	3.5
3.6	·4784801	+10786	·4673521	+7417	·4562816	+5600	·4452768	+4100	·4343453	+3000	·4234946	3.6
3.7	·5189443	+12281	·5079903	+8442	·4970608	+6200	·4861640	+4600	·4753075	+3500	·4644990	3.7
3.8	·5584983	+13896	·5478233	+9577	·5371425	+6800	·5264636	+5100	·5157940	+4000	·5051414	3.8
3.9	·5980606	+15631	·5865023	+10822	·5761650	+7400	·5658017	+5600	·5554198	+4500	·5450262	3.9
4.0	·6385846	+17516	·6237279	+12187	·6138144	+8000	·6038509	+6100	·5938436	+5000	·5837994	4.0
4.1	·6806005	+19541	·6592528	+13672	·6498286	+8600	·6403337	+6500	·6307741	+5500	·6211555	4.1
4.2	·7241675	+21716	·7028829	+15287	·6939981	+9200	·6850260	+7000	·6759717	+6000	·6668404	4.2
4.3	·7702823	+24041	·7484763	+16942	·7361663	+9800	·7257562	+7500	·7152502	+6500	·7046528	4.3
4.4	·8181516	+26516	·7953940	+18747	·7822664	+10400	·7704035	+8000	·7584747	+7000	·7464437	4.4
4.5	·8682184	+29141	·8412271	+20692	·8241185	+11000	·8068950	+8500	·7895591	+7500	·7721136	4.5
4.6	·9202716	+31916	·8806329	+22787	·8699824	+11600	·8593201	+9000	·8486468	+8000	·8379608	4.6
4.7	·9750723	+34841	·9292767	+25032	·9183363	+12200	·9073301	+9500	·8963113	+8500	·8852912	4.7
4.8	·10335315	+37916	·9801249	+27427	·9647822	+12800	·9493327	+10000	·9338701	+9000	·9184062	4.8
4.9	·10964410	+41141	·10389560	+30072	·10241591	+13400	·10092503	+10500	·9942298	+9500	·98490978	4.9
5.0	·11650453	+44516	·1098699	+32877	·10815883	+14000	·10642000	+11500	·10467049	+10500	·10291027	5.0
5.1	·12406806	+48041	·11690802	+35822	·11518800	+14600	·11342795	+12000	·11166781	+11000	·10990753	5.1
5.2	·13237674	+51616	·1244094	+38917	·12310549	+15200	·12130670	+12500	·11950649	+11500	·117704279	5.2
5.3	·141491461	+55341	·1322854	+42162	·13133397	+15800	·12953080	+13000	·12771894	+12500	·12590628	5.3
5.4	·15143339	+59116	·14167375	+45557	·14091639	+16400	·138915118	+13500	·13697802	+13000	·135039680	5.4
5.5	·162340622	+63041	·15168943	+49102	·15136566	+17000	·149213480	+14500	·147138973	+14000	·14506134	5.5
5.6	·174257545	+67066	·16238805	+52797	·16219442	+17600	·160094941	+15000	·158078793	+14500	·156054785	5.6
5.7	·18734288	+71291	·17408162	+56642	·17491481	+18200	·17274234	+15500	·17065408	+15000	·168657994	5.7
5.8	·201681962	+75716	·18688145	+60647	·18783839	+18800	·185639031	+16000	·183523713	+15500	·181496781	5.8
5.9	·21731604	+80341	·20091815	+64802	·20197598	+19400	·20004940	+16500	·1981833	+16000	·19638264	5.9
6.0	·234274171	+85066	·21624153	+69107	·2173762	+20000	·21542987	+17000	·213551819	+16500	·211720248	6.0
6.1	·252610537	+89991	·23282058	+73512	·23393256	+20600	·23204121	+17500	·23024644	+17000	·22844817	6.1
6.2	·27241495	+95016	·25064346	+78017	·25176918	+21200	·249819204	+18000	·247911195	+17500	·246032882	6.2
6.3	·2937759	+100141	·26981754	+82622	·270955510	+21800	·269049020	+18500	·267182271	+18000	·265345273	6.3
6.4	·316789967	+105366	·29048490	+87327	·291679710	+22400	·28984271	+19000	·28808615	+18500	·286352736	6.4
6.5	·341490864	+110691	·31294492	+92132	·314100127	+23000	·31225584	+19500	·310490857	+19000	·30875941	6.5

u	p = 14.0		p = 14.2		p = 14.4		p = 14.6		p = 14.8		p = 15.0		u		
	$\delta_u^0$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
-4													-4		
-5	+1		0.000000	+1		0.000000	+1		0.000000	+1		0.000000	+1		-5
-6	+2		0.000000	+2		0.000000	+2		0.000000	+2		0.000000	+2		-6
-7	+3		0.000000	+3		0.000000	+3		0.000000	+3		0.000000	+3		-7
-8	+4		0.000001	+4		0.000001	+4		0.000001	+4		0.000001	+4		-8
-9	+5		0.000008	+5		0.000006	+5		0.000005	+5		0.000004	+5		-9
1.0	+6		0.000032	+6		0.000026	+6		0.000021	+6		0.000016	+6		1.0
1.1	+7		0.000112	+7		0.000091	+7		0.000074	+7		0.000060	+7		1.1
1.2	+8		0.000334	+8		0.000276	+8		0.000228	+8		0.000188	+8		1.2
1.3	+9		0.000877	+9		0.000735	+9		0.000616	+9		0.000516	+9		1.3
1.4	+10		0.002070	+10		0.001760	+10		0.001495	+10		0.001268	+10		1.4
1.5	+11		0.004469	+11		0.003846	+11		0.003306	+11		0.002839	+11		1.5
1.6	+12		0.008937	+12		0.007775	+12		0.006757	+12		0.005868	+12		1.6
1.7	+13		0.016168	+13		0.014689	+13		0.012897	+13		0.011314	+13		1.7
1.8	+14		0.029488	+14		0.026156	+14		0.023180	+14		0.020525	+14		1.8
1.9	+15		0.049401	+15		0.044197	+15		0.039508	+15		0.035286	+15		1.9
2.0	+16		0.079048	+16		0.071287	+16		0.064235	+16		0.057832	+16		2.0
2.1	+17		0.121400	+17		0.110295	+17		0.100124	+17		0.090817	+17		2.1
2.2	+18		0.179694	+18		0.164384	+18		0.150260	+18		0.137242	+18		2.2
2.3	+19		0.257274	+19		0.236870	+19		0.217917	+19		0.200338	+19		2.3
2.4	+20		0.357405	+20		0.331039	+20		0.306388	+20		0.283363	+20		2.4
2.5	+21		0.483079	+21		0.449954	+21		0.418796	+21		0.389516	+21		2.5
2.6	+22		0.636816	+22		0.596263	+22		0.557901	+22		0.521643	+22		2.6
2.7	+23		0.820494	+23		0.772019	+23		0.725915	+23		0.682103	+23		2.7
2.8	+24		1.035213	+24		0.978532	+24		0.924348	+24		0.872596	+24		2.8
2.9	+25		1.281200	+25		1.216267	+25		1.153895	+25		1.094033	+25		2.9
3.0	+26		1.557776	+26		1.484790	+26		1.414363	+26		1.346400	+26		3.0
3.1	+27		1.863359	+27		1.782766	+27		1.704660	+27		1.629026	+27		3.1
3.2	+28		2.195534	+28		2.108903	+28		2.022825	+28		1.940002	+28		3.2
3.3	+29		2.551149	+29		2.457548	+29		2.366107	+29		2.276846	+29		3.3
3.4	+30		2.926454	+30		2.827810	+30		2.731085	+30		2.636314	+30		3.4
3.5	+31		3.317252	+31		3.214709	+31		3.113806	+31		3.014591	+31		3.5
3.6	+32		3.719070	+32		3.613841	+32		3.509949	+32		3.407451	+32		3.6
3.7	+33		4.127320	+33		4.020645	+33		3.914989	+33		3.810416	+33		3.7
3.8	+34		4.537460	+34		4.430559	+34		4.324357	+34		4.218923	+34		3.8
3.9	+35		4.945133	+35		4.839168	+35		4.733592	+35		4.628475	+35		3.9
4.0	+36		5.346282	+36		5.242327	+36		5.138469	+36		5.034776	+36		4.0
4.1	+37		5.737248	+37		5.636265	+37		5.535110	+37		5.433850	+37		4.1
4.2	+38		6.114840	+38		6.017656	+38		5.920066	+38		5.822126	+38		4.2
4.3	+39		6.476371	+39		6.383674	+39		6.290366	+39		6.196502	+39		4.3
4.4	+40		6.819683	+40		6.732013	+40		6.643565	+40		6.554387	+40		4.4
4.5	+41		7.143140	+41		7.060895	+41		7.977741	+41		6.893718	+41		4.5
4.6	+42		7.445613	+42		7.369053	+42		7.291487	+42		7.212949	+42		4.6
4.7	+43		7.726442	+43		7.655701	+43		7.583890	+43		7.511034	+43		4.7
4.8	+44		7.985393	+44		7.920491	+44		7.854485	+44		7.787392	+44		4.8
4.9	+45		8.222607	+45		8.163467	+45		8.103213	+45		8.041858	+45		4.9
5.0	+46		8.438546	+46		8.385007	+46		8.330368	+46		8.274634	+46		5.0
5.1	+47		8.633934	+47		8.585770	+47		8.536536	+47		8.486234	+47		5.1
5.2	+48		8.809706	+48		8.766637	+48		8.722544	+48		8.677426	+48		5.2
5.3	+49		8.966952	+49		8.928663	+49		8.889407	+49		8.849177	+49		5.3
5.4	+50		9.106875	+50		9.073025	+50		9.038271	+50		9.002607	+50		5.4
5.5	+51		9.230741	+51		9.200977	+51		9.170378	+51		9.138935	+51		5.5
5.6	+52		9.339852	+52		9.313816	+52		9.287016	+52		9.259442	+52		5.6
5.7	+53		9.435507	+53		9.412846	+53		9.389493	+53		9.365436	+53		5.7
5.8	+54		9.518978	+54		9.499351	+54		9.479100	+54		9.458216	+54		5.8
5.9	+55		9.591945	+55		9.574575	+55		9.557098	+55		9.539055	+55		5.9
6.0	+56		9.654225	+56		9.639704	+56		9.624691	+56		9.609175	+56		6.0
6.1	+57		9.708264	+57		9.695857	+57		9.683017	+57		9.669735	+57		6.1
6.2	+58		9.754630	+58		9.744074	+58		9.733140	+58		9.721819	+58		6.2
6.3	+59		9.794258	+59		9.785314	+59		9.776042	+59		9.766433	+59		6.3
6.4	+60		9.828001	+60		9.820453	+60		9.812622	+60		9.804500	+60		6.4
6.5	+61		9.856628	+61		9.850283	+61		9.843695	+61		9.836856	+61		6.5
6.6	+62		9.880829	+62		9.875515	+62		9.869994	+62		9.864259	+62		6.6





$u$	$p = 14.0$		$p = 14.2$		$p = 14.4$		$p = 14.6$		$p = 14.8$		$p = 15.0$		$u$					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
6.5	-365 -70	-198	.9880829	-361 -71	-202	.9875515	-362 -73	-208	.9869994	-417 -75	-214	.9864259	-427 -76	-220	.9858304	-443 -76	-227	6.5
6.6	-318 -85	-166	.9901219	-326 -65	-171	.9896785	-340 -67	-176	.9892176	-353 -71	-182	.9887384	-367 -70	-188	.9882404	-382 -71	-192	6.6
6.7	-267 -99	-140	.9918341	-279 -60	-144	.9914655	-296 -60	-149	.9910820	-302 -65	-154	.9906831	-317 -55	-159	.9902683	-327 -54	-164	6.7
6.8	-227 -54	-117	.9932673	-237 -58	-121	.9929619	-247 -54	-125	.9926440	-257 -59	-129	.9923131	-268 -59	-134	.9919688	-279 -61	-138	6.8
6.9	-192 -49	-98	.9944633	-201 -61	-101	.9942111	-206 -49	-105	.9939484	-214 -64	-108	.9936749	-227 -63	-112	.9933901	-237 -55	-116	6.9
7.0	-162 -44	-82	.9954582	-166 -47	-85	.9952507	-171 -44	-87	.9950344	-184 -49	-91	.9948090	-192 -49	-94	.9945743	-207 -49	-98	7.0
7.1	-136 -38	-68	.9962835	-142 -42	-70	.9961132	-149 -40	-73	.9959357	-154 -44	-75	.9957506	-162 -46	-78	.9955578	-169 -44	-82	7.1
7.2	-114 -34	-56	.9969660	-119 -38	-58	.9968268	-124 -38	-60	.9966816	-130 -39	-62	.9965301	-136 -41	-64	.9963721	-141 -40	-66	7.2
7.3	-95 -30	-46	.9975290	-99 -34	-48	.9974155	-104 -32	-50	.9972970	-109 -35	-51	.9971734	-113 -37	-53	.9970445	-118 -36	-55	7.3
7.4	-79 -27	-36	.9979922	-83 -30	-39	.9978999	-87 -29	-41	.9978035	-90 -31	-42	.9977030	-94 -32	-44	.9975981	-99 -32	-48	7.4
7.5	-66 -24	-31	.9983721	-69 -27	-32	.9982973	-72 -28	-33	.9982192	-75 -27	-35	.9981377	-79 -27	-36	.9980525	-82 -27	-36	7.5
7.6	-54 -22	-25	.9986830	-57 -24	-28	.9986226	-59 -23	-27	.9985594	-62 -25	-28	.9984935	-63 -23	-29	.9984246	-68 -23	-30	7.6
7.7	-44 -19	-20	.9989368	-47 -20	-21	.9988881	-49 -18	-22	.9988372	-51 -23	-23	.9987840	-53 -19	-24	.9987285	-56 -19	-25	7.7
7.8	-37 -14	-16	.9991435	-38 -15	-17	.9991044	-40 -14	-18	.9990634	-42 -20	-18	.9990207	-44 -16	-19	.9989760	-46 -15	-20	7.8
7.9	-30 -11	-13	.9993114	-31 -12	-14	.9992800	-32 -12	-14	.9992472	-34 -15	-15	.9992129	-36 -13	-16	.9991771	-38 -14	-17	7.9
8.0	-24 -10	-11	.9994475	-26 -10	-11	.9994224	-27 -11	-12	.9993962	-28 -12	-12	.9993687	-29 -11	-12	.9993401	-31 -12	-14	8.0
8.1	-20 -8	-8	.9995576	-21 -8	-9	.9995376	-22 -9	-9	.9995166	-23 -10	-9	.9994948	-24 -9	-10	.9994719	-25 -9	-11	8.1
8.2	-16 -7	-7	.9996464	-17 -7	-7	.9996305	-18 -7	-7	.9996138	-19 -8	-8	.9995964	-19 -8	-8	.9995782	-20 -9	-8	8.2
8.3	-13 -6	-6	.9997179	-14 -6	-6	.9997052	-14 -6	-6	.9996920	-15 -6	-6	.9996782	-16 -7	-6	.9996638	-16 -8	-7	8.3
8.4	-10 -5	-4	.9997753	-11 -5	-4	.9997653	-11 -5	-5	.9997549	-12 -5	-5	.9997439	-13 -6	-5	.9997325	-13 -8	-6	8.4
8.5	-8 -4	-4	.9998214	-9 -4	-4	.9998135	-9 -4	-4	.9998053	-10 -4	-4	.9997966	-10 -5	-4	.9997876	-11 -4	-5	8.5
8.6	-7 -3	-3	.9998583	-8 -3	-3	.9998521	-8 -3	-3	.9998456	-9 -3	-3	.9998388	-9 -3	-3	.9998316	-9 -3	-4	8.6
8.7	-6 -3	-3	.9998877	-7 -3	-3	.9998828	-7 -3	-3	.9998777	-8 -3	-3	.9998724	-8 -3	-3	.9998668	-8 -3	-4	8.7
8.8	-5 -3	-3	.9999112	-6 -3	-3	.9999074	-6 -3	-3	.9999034	-7 -3	-3	.9998992	-7 -3	-3	.9998948	-7 -3	-4	8.8
8.9	-4 -3	-3	.9999299	-5 -3	-3	.9999269	-5 -3	-3	.9999238	-6 -3	-3	.9999205	-6 -3	-3	.9999171	-6 -3	-4	8.9
9.0	-3 -3	-3	.9999447	-4 -3	-3	.9999424	-4 -3	-3	.9999400	-5 -3	-3	.9999374	-5 -3	-3	.9999347	-5 -3	-4	9.0
9.1	-2 -3	-3	.9999565	-3 -3	-3	.9999547	-3 -3	-3	.9999528	-4 -3	-3	.9999508	-4 -3	-3	.9999487	-4 -3	-4	9.1
9.2	-1 -3	-3	.9999658	-2 -3	-3	.9999644	-2 -3	-3	.9999629	-3 -3	-3	.9999614	-3 -3	-3	.9999598	-3 -3	-4	9.2
9.3	-1 -3	-3	.9999732	-1 -3	-3	.9999721	-1 -3	-3	.9999709	-2 -3	-3	.9999697	-2 -3	-3	.9999685	-2 -3	-4	9.3
9.4	-1 -3	-3	.9999790	-1 -3	-3	.9999781	-1 -3	-3	.9999773	-2 -3	-3	.9999763	-2 -3	-3	.9999754	-2 -3	-4	9.4
9.5	-1 -3	-3	.9999836	-1 -3	-3	.9999829	-1 -3	-3	.9999822	-2 -3	-3	.9999815	-2 -3	-3	.9999808	-2 -3	-4	9.5
9.6	-1 -3	-3	.9999872	-1 -3	-3	.9999867	-1 -3	-3	.9999861	-2 -3	-3	.9999856	-2 -3	-3	.9999850	-2 -3	-4	9.6
9.7	-1 -3	-3	.9999900	-1 -3	-3	.9999896	-1 -3	-3	.9999892	-2 -3	-3	.9999888	-2 -3	-3	.9999883	-2 -3	-4	9.7
9.8	-1 -3	-3	.9999922	-1 -3	-3	.9999919	-1 -3	-3	.9999916	-2 -3	-3	.9999913	-2 -3	-3	.9999909	-2 -3	-4	9.8
9.9	-1 -3	-3	.9999939	-1 -3	-3	.9999937	-1 -3	-3	.9999935	-2 -3	-3	.9999932	-2 -3	-3	.9999930	-2 -3	-4	9.9
10.0			.9999953			.9999951			.9999949			.9999947			.9999945			10.0
10.1			.9999963			.9999962			.9999961			.9999959			.9999958			10.1
10.2			.9999972			.9999971			.9999970			.9999968			.9999967			10.2
10.3			.9999978			.9999977			.9999976			.9999976			.9999975			10.3
10.4			.9999983			.9999982			.9999982			.9999981			.9999981			10.4
10.5			.9999987			.9999986			.9999986			.9999986			.9999985			10.5
10.6			.9999990			.9999990			.9999989			.9999989			.9999988			10.6
10.7			.9999992			.9999992			.9999992			.9999991			.9999991			10.7
10.8			.9999994			.9999994			.9999994			.9999993			.9999993			10.8
10.9			.9999995			.9999995			.9999995			.9999995			.9999995			10.9
11.0			.9999996			.9999996			.9999996			.9999996			.9999996			11.0
11.1			.9999997			.9999997			.9999997			.9999997			.9999997			11.1
11.2			.9999998			.9999998			.9999998			.9999998			.9999998			11.2
11.3			.9999998			.9999998			.9999998			.9999998			.9999998			11.3
11.4			.9999999			.9999999			.9999999			.9999999			.9999999			11.4
11.5			.9999999			.9999999			.9999999			.9999999			.9999999			11.5
11.6			.9999999			.9999999			.9999999			.9999999			.9999999			11.6
11.7			1.0000000			1.0000000			1.0000000			1.0000000			.9999999			11.7
11.8															1.0000000			11.8



u	p = 16.0		p = 16.2		p = 16.4		p = 16.6		p = 16.8		p = 17.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^3$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^3$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^3$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^3$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^3$ $\delta_p^4$
·5			·0000000			·0000000			·0000000			·0000000			·5
·6			·0000001			·0000000			·0000000			·0000000			·6
·7	+1		·0000003			·0000003			·0000002			·0000002			·7
·8	+1		·0000004			·0000011			·0000009			·0000007			·8
·9	+2		·0000005			·0000012			·0000010			·0000008			·9
1.0	+2		·0000006			·0000013			·0000011			·0000009			1.0
1.1	+3		·0000007			·0000014			·0000012			·0000010			1.1
1.2	+3		·0000008			·0000015			·0000013			·0000011			1.2
1.3	+4		·0000009			·0000016			·0000014			·0000012			1.3
1.4	+4		·0000010			·0000017			·0000015			·0000013			1.4
1.5	+5		·0000011			·0000018			·0000016			·0000014			1.5
1.6	+5		·0000012			·0000019			·0000017			·0000015			1.6
1.7	+6		·0000013			·0000020			·0000018			·0000016			1.7
1.8	+6		·0000014			·0000021			·0000019			·0000017			1.8
1.9	+7		·0000015			·0000022			·0000020			·0000018			1.9
2.0	+7		·0000016			·0000023			·0000021			·0000019			2.0
2.1	+8		·0000017			·0000024			·0000022			·0000020			2.1
2.2	+8		·0000018			·0000025			·0000023			·0000021			2.2
2.3	+9		·0000019			·0000026			·0000024			·0000022			2.3
2.4	+9		·0000020			·0000027			·0000025			·0000023			2.4
2.5	+10		·0000021			·0000028			·0000026			·0000024			2.5
2.6	+10		·0000022			·0000029			·0000027			·0000025			2.6
2.7	+11		·0000023			·0000030			·0000028			·0000026			2.7
2.8	+11		·0000024			·0000031			·0000029			·0000027			2.8
2.9	+12		·0000025			·0000032			·0000030			·0000028			2.9
3.0	+12		·0000026			·0000033			·0000031			·0000029			3.0
3.1	+13		·0000027			·0000034			·0000032			·0000030			3.1
3.2	+13		·0000028			·0000035			·0000033			·0000031			3.2
3.3	+14		·0000029			·0000036			·0000034			·0000032			3.3
3.4	+14		·0000030			·0000037			·0000035			·0000033			3.4
3.5	+15		·0000031			·0000038			·0000036			·0000034			3.5
3.6	+15		·0000032			·0000039			·0000037			·0000035			3.6
3.7	+16		·0000033			·0000040			·0000038			·0000036			3.7
3.8	+16		·0000034			·0000041			·0000039			·0000037			3.8
3.9	+17		·0000035			·0000042			·0000040			·0000038			3.9
4.0	+17		·0000036			·0000043			·0000041			·0000039			4.0
4.1	+18		·0000037			·0000044			·0000042			·0000040			4.1
4.2	+18		·0000038			·0000045			·0000043			·0000041			4.2
4.3	+19		·0000039			·0000046			·0000044			·0000042			4.3
4.4	+19		·0000040			·0000047			·0000045			·0000043			4.4
4.5	+20		·0000041			·0000048			·0000046			·0000044			4.5
4.6	+20		·0000042			·0000049			·0000047			·0000045			4.6
4.7	+21		·0000043			·0000050			·0000048			·0000046			4.7
4.8	+21		·0000044			·0000051			·0000049			·0000047			4.8
4.9	+22		·0000045			·0000052			·0000050			·0000048			4.9
5.0	+22		·0000046			·0000053			·0000051			·0000049			5.0
5.1	+23		·0000047			·0000054			·0000052			·0000050			5.1
5.2	+23		·0000048			·0000055			·0000053			·0000051			5.2
5.3	+24		·0000049			·0000056			·0000054			·0000052			5.3
5.4	+24		·0000050			·0000057			·0000055			·0000053			5.4
5.5	+25		·0000051			·0000058			·0000056			·0000054			5.5
5.6	+25		·0000052			·0000059			·0000057			·0000055			5.6
5.7	+26		·0000053			·0000060			·0000058			·0000056			5.7
5.8	+26		·0000054			·0000061			·0000059			·0000057			5.8
5.9	+27		·0000055			·0000062			·0000060			·0000058			5.9
6.0	+27		·0000056			·0000063			·0000061			·0000059			6.0
6.1	+28		·0000057			·0000064			·0000062			·0000060			6.1
6.2	+28		·0000058			·0000065			·0000063			·0000061			6.2
6.3	+29		·0000059			·0000066			·0000064			·0000062			6.3
6.4	+29		·0000060			·0000067			·0000065			·0000063			6.4
6.5	+30		·0000061			·0000068			·0000066			·0000064			6.5



u	p = 16.0		p = 16.2		p = 16.4		p = 16.6		p = 16.8		p = 17.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
6.5	-5380 -88	-260	.9817577	-5519 -84	-267	.9809894	-5716 -84	-274	.9801936	-5914 -84	-282	.9793697	-6119 -84	-289	.9785169	-6328 -84	-296	6.5
6.6	-4607 -79	-223	.9848264	-4776 -84	-230	.9841806	-4981 -81	-231	.9835113	-5180 -82	-242	.9828177	-5312 -84	-249	.9820992	-5497 -86	-256	6.6
6.7	-3983 -75	-190	.9874173	-4113 -79	-196	.9868767	-4267 -77	-202	.9863160	-4425 -78	-207	.9857345	-4586 -81	-213	.9851318	-4754 -82	-219	6.7
6.8	-3355 -69	-161	.9895969	-3330 -72	-166	.9891461	-3509 -72	-171	.9886782	-3709 -73	-177	.9881927	-3942 -76	-182	.9876890	-4098 -76	-187	6.8
6.9	-2893 -62	-138	.9914239	-3097 -65	-141	.9910495	-3126 -66	-143	.9906605	-3246 -68	-140	.9902567	-3372 -69	-154	.9898374	-3509 -79	-150	6.9
7.0	-2457 -57	-114	.9929502	-2350 -69	-118	.9926403	-2653 -69	-122	.9923182	-2764 -68	-126	.9919835	-2871 -63	-139	.9916358	-2983 -64	-134	7.0
7.1	-2077 -52	-95	.9942209	-2162 -62	-99	.9939653	-2249 -55	-102	.9936995	-2340 -55	-106	.9934232	-2435 -58	-109	.9931359	-2539 -60	-112	7.1
7.2	-1749 -46	-80	.9952754	-1822 -47	-82	.9950654	-1896 -49	-85	.9948468	-1975 -46	-88	.9946194	-2054 -53	-91	.9943830	-2139 -55	-94	7.2
7.3	-1487 -41	-66	.9961477	-1529 -42	-68	.9959757	-1533 -44	-71	.9957966	-1609 -45	-73	.9956102	-1729 -48	-76	.9954162	-1799 -49	-76	7.3
7.4	-1227 -36	-54	.9968671	-1279 -37	-56	.9967267	-1334 -39	-58	.9965804	-1399 -39	-60	.9964281	-1448 -42	-63	.9962695	-1508 -43	-65	7.4
7.5	-1021 -30	-43	.9974586	-1066 -32	-46	.9973443	-1111 -35	-48	.9972252	-1158 -34	-50	.9971012	-1209 -37	-52	.9969720	-1259 -38	-53	7.5
7.6	-846 -27	-37	.9979435	-885 -28	-38	.9978508	-923 -30	-39	.9977542	-964 -29	-41	.9976535	-1005 -32	-42	.9975486	-1046 -33	-44	7.6
7.7	-702 -24	-30	.9983399	-732 -24	-31	.9982650	-765 -25	-32	.9981868	-798 -25	-33	.9981053	-832 -28	-35	.9980204	-869 -29	-36	7.7
7.8	-578 -20	-24	.9986631	-605 -20	-25	.9986027	-631 -21	-26	.9985396	-668 -21	-27	.9984739	-696 -25	-28	.9984053	-717 -26	-29	7.8
7.9	-476 -16	-20	.9989258	-496 -18	-20	.9988773	-519 -18	-21	.9988266	-543 -18	-22	.9987737	-566 -21	-23	.9987185	-590 -22	-24	7.9
8.0	-399 -14	-16	.9991389	-405 -14	-16	.9991000	-426 -15	-17	.9990593	-444 -16	-18	.9990169	-464 -18	-18	.9989727	-486 -19	-19	8.0
8.1	-318 -11	-13	.9993112	-333 -12	-13	.9992801	-346 -12	-14	.9992476	-363 -14	-14	.9992137	-380 -15	-15	.9991783	-396 -16	-15	8.1
8.2	-260 -9	-10	.9994502	-271 -10	-11	.9994254	-293 -10	-11	.9993996	-309 -12	-11	.9993725	-319 -12	-12	.9993443	-324 -12	-12	8.2
8.3	-211 -8	-8	.9995621	-220 -9	-8	.9995424	-230 -8	-9	.9995219	-242 -10	-9	.9995003	-251 -11	-10	.9994779	-263 -11	-10	8.3
8.4	-170 -7	-8	.9996520	-179 -8	-7	.9996364	-188 -7	-7	.9996200	-194 -9	-7	.9996030	-205 -10	-8	.9995852	-214 -9	-8	8.4
8.5	-139 -6	-5	.9997240	-148 -7	-5	.9997116	-161 -6	-6	.9996987	-168 -7	-6	.9996852	-165 -9	-6	.9996711	-172 -7	-6	8.5
8.6	-111 -5	-4	.9997815	-116 -6	-4	.9997717	-121 -5	-4	.9997616	-128 -5	-5	.9997509	-133 -7	-5	.9997398	-139 -6	-5	8.6
8.7	-90 -4	-4	.9998274	-94 -4	-4	.9998197	-99 -4	-4	.9998117	-102 -5	-4	.9998033	-107 -6	-4	.9997946	-113 -5	-4	8.7
8.8	-72 -4	-4	.9998639	-70 -4	-4	.9998578	-78 -4	-4	.9998516	-83 -4	-4	.9998450	-86 -5	-4	.9998381	-89 -4	-4	8.8
8.9	-57 -4	-4	.9998928	-59 -4	-4	.9998881	-63 -4	-4	.9998832	-65 -4	-4	.9998781	-69 -4	-4	.9998727	-72 -4	-4	8.9
9.0	-46 -4	-4	.9999158	-48 -4	-4	.9999121	-60 -4	-4	.9999083	-53 -4	-4	.9999043	-55 -4	-4	.9999001	-58 -4	-4	9.0
9.1	-37 -4	-4	.9999340	-39 -4	-4	.9999311	-40 -4	-4	.9999281	-41 -4	-4	.9999250	-44 -4	-4	.9999217	-43 -4	-4	9.1
9.2	-28 -4	-4	.9999483	-30 -4	-4	.9999461	-32 -4	-4	.9999438	-34 -4	-4	.9999413	-34 -4	-4	.9999388	-37 -4	-4	9.2
9.3	-24 -4	-4	.9999596	-24 -4	-4	.9999579	-26 -4	-4	.9999561	-27 -4	-4	.9999542	-28 -4	-4	.9999522	-28 -4	-4	9.3
9.4	-19 -4	-4	.9999685	-19 -4	-4	.9999671	-19 -4	-4	.9999657	-20 -4	-4	.9999643	-22 -4	-4	.9999628	-24 -4	-4	9.4
9.5	-13 -4	-4	.9999755	-18 -4	-4	.9999744	-18 -4	-4	.9999733	-16 -4	-4	.9999722	-17 -4	-4	.9999710	-17 -4	-4	9.5
9.6	-12 -4	-4	.9999809	-11 -4	-4	.9999801	-12 -4	-4	.9999793	-14 -4	-4	.9999784	-13 -4	-4	.9999775	-14 -4	-4	9.6
9.7	-9 -4	-4	.9999852	-10 -4	-4	.9999846	-11 -4	-4	.9999839	-11 -4	-4	.9999833	-10 -4	-4	.9999826	-12 -4	-4	9.7
9.8	-7 -4	-4	.9999885	-7 -4	-4	.9999880	-7 -4	-4	.9999876	-9 -4	-4	.9999870	-8 -4	-4	.9999865	-8 -4	-4	9.8
9.9	-6 -4	-4	.9999911	-8 -4	-4	.9999907	-5 -4	-4	.9999904	-6 -4	-4	.9999900	-7 -4	-4	.9999896	-7 -4	-4	9.9
10.0	-4 -4	-4	.9999931	-4 -4	-4	.9999929	-4 -4	-4	.9999926	-5 -4	-4	.9999923	-6 -4	-4	.9999920	-6 -4	-4	10.0
10.1	-4 -4	-4	.9999947	-4 -4	-4	.9999945	-4 -4	-4	.9999943	-4 -4	-4	.9999940	-4 -4	-4	.9999938	-4 -4	-4	10.1
10.2	-4 -4	-4	.9999959	-4 -4	-4	.9999958	-4 -4	-4	.9999956	-4 -4	-4	.9999954	-4 -4	-4	.9999952	-4 -4	-4	10.2
10.3	-4 -4	-4	.9999969	-4 -4	-4	.9999967	-4 -4	-4	.9999966	-4 -4	-4	.9999965	-4 -4	-4	.9999963	-4 -4	-4	10.3
10.4	-4 -4	-4	.9999976	-4 -4	-4	.9999975	-4 -4	-4	.9999974	-4 -4	-4	.9999973	-4 -4	-4	.9999972	-4 -4	-4	10.4
10.5	-4 -4	-4	.9999981	-4 -4	-4	.9999981	-4 -4	-4	.9999980	-4 -4	-4	.9999979	-4 -4	-4	.9999979	-4 -4	-4	10.5
10.6	-4 -4	-4	.9999986	-4 -4	-4	.9999985	-4 -4	-4	.9999985	-4 -4	-4	.9999984	-4 -4	-4	.9999984	-4 -4	-4	10.6
10.7	-4 -4	-4	.9999989	-4 -4	-4	.9999989	-4 -4	-4	.9999988	-4 -4	-4	.9999988	-4 -4	-4	.9999987	-4 -4	-4	10.7
10.8	-4 -4	-4	.9999992	-4 -4	-4	.9999991	-4 -4	-4	.9999991	-4 -4	-4	.9999991	-4 -4	-4	.9999990	-4 -4	-4	10.8
10.9	-4 -4	-4	.9999994	-4 -4	-4	.9999993	-4 -4	-4	.9999993	-4 -4	-4	.9999993	-4 -4	-4	.9999993	-4 -4	-4	10.9
11.0	-4 -4	-4	.9999995	-4 -4	-4	.9999995	-4 -4	-4	.9999995	-4 -4	-4	.9999995	-4 -4	-4	.9999994	-4 -4	-4	11.0
11.1	-4 -4	-4	.9999996	-4 -4	-4	.9999996	-4 -4	-4	.9999996	-4 -4	-4	.9999996	-4 -4	-4	.9999996	-4 -4	-4	11.1
11.2	-4 -4	-4	.9999997	-4 -4	-4	.9999997	-4 -4	-4	.9999997	-4 -4	-4	.9999997	-4 -4	-4	.9999997	-4 -4	-4	11.2
11.3	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	11.3
11.4	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	11.4
11.5	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	11.5
11.6	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	11.6
11.7	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	11.7
11.8	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	11.8
11.9	-4 -4	-4	1.0000000	-4 -4	-4	1.0000000	-4 -4	-4	1.0000000	-4 -4	-4	1.0000000	-4 -4	-4	1.0000000	-4 -4	-4	11.9

Table with columns for u, p, I(u, p), and various delta terms (delta\_u^2, delta\_p^2, delta\_u^4, delta\_p^4) for p values from 17.0 to 18.0. The table is organized into sections for each p value, with rows corresponding to u values from 0.7 to 6.5. Each entry includes numerical values and small error indicators.



u	p = 17.0			p = 17.2			p = 17.4			p = 17.6			p = 17.8			p = 18.0	
	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	u
6.5	.9785169	-6328 -88	-296	.9776345	-6541 -86	-303	.9767217	-6757 -88	-311	.9757779	-6979 -88	-318	.9748022	-7205 -88	-326	.9737939	6.5
6.6	.9820992	-5497 -95	-256	.9813552	-5689 -85	-282	.9805850	-5885 -86	-269	.9797879	-6055 -84	-276	.9789631	-6287 -89	-283	.9781101	6.6
6.7	.9851318	-4754 -82	-219	.9845070	-4922 -82	-226	.9838598	-5097 -84	-231	.9831894	-5274 -80	-238	.9824953	-5468 -85	-244	.9817768	6.7
6.8	.9876890	-4088 -76	-187	.9871666	-4240 -78	-192	.9866249	-4393 -80	-198	.9860635	-4652 -78	-203	.9854817	-4713 -81	-209	.9848791	6.8
6.9	.9898374	-3590 -70	-159	.9894022	-3931 -73	-163	.9889507	-3767 -75	-168	.9884824	-3906 -72	-173	.9879968	-4080 -77	-176	.9874934	6.9
7.0	.9916358	-2993 -64	-134	.9912747	-3098 -68	-138	.9908998	-3216 -69	-142	.9905107	-3338 -88	-147	.9901069	-3482 -72	-151	.9896881	7.0
7.1	.9931359	-2530 -58	-112	.9928374	-2639 -68	-116	.9925273	-2733 -62	-120	.9922052	-2888 -53	-123	.9918708	-2947 -88	-127	.9915237	7.1
7.2	.9944380	-2139 -55	-94	.9941371	-2224 -58	-97	.9938815	-2312 -57	-100	.9936159	-2403 -59	-104	.9933400	-2498 -58	-107	.9930533	7.2
7.3	.9954162	-1799 -49	-78	.9952144	-1878 -52	-81	.9950045	-1948 -52	-84	.9947863	-2027 -54	-88	.9945594	-2107 -54	-89	.9943236	7.3
7.4	.9962695	-1598 -43	-66	.9961044	-1679 -47	-67	.9959327	-1698 -47	-69	.9957540	-1792 -49	-72	.9955681	-1779 -49	-74	.9953748	7.4
7.5	.9969720	-1269 -38	-53	.9968374	-1312 -42	-55	.9966973	-1388 -42	-57	.9965515	-1422 -45	-59	.9963998	-1482 -43	-61	.9962419	7.5
7.6	.9975486	-1048 -38	-44	.9974392	-1092 -37	-45	.9973253	-1137 -35	-47	.9972068	-1187 -38	-49	.9970833	-1235 -38	-50	.9969548	7.6
7.7	.9980204	-869 -29	-36	.9979318	-906 -33	-37	.9978396	-946 -33	-38	.9977434	-993 -31	-40	.9976433	-1028 -32	-41	.9975391	7.7
7.8	.9984053	-717 -25	-29	.9983338	-748 -27	-30	.9982593	-780 -25	-31	.9981817	-816 -27	-33	.9981007	-849 -28	-34	.9980164	7.8
7.9	.9987185	-590 -22	-24	.9986610	-617 -23	-25	.9986010	-644 -24	-26	.9985384	-676 -24	-27	.9984732	-709 -24	-28	.9984053	7.9
8.0	.9989727	-486 -19	-19	.9989265	-506 -20	-20	.9988783	-528 -21	-21	.9988281	-552 -21	-21	.9987757	-578 -22	-22	.9987211	8.0
8.1	.9991783	-396 -16	-15	.9991414	-415 -16	-16	.9991028	-433 -17	-17	.9990626	-452 -18	-17	.9990206	-471 -19	-18	.9989769	8.1
8.2	.9993443	-324 -14	-12	.9993148	-338 -13	-13	.9992840	-359 -12	-13	.9992519	-383 -13	-14	.9992184	-385 -16	-14	.9991835	8.2
8.3	.9994779	-263 -11	-10	.9994544	-274 -11	-10	.9994300	-299 -12	-10	.9994044	-300 -13	-11	.9993777	-313 -13	-11	.9993499	8.3
8.4	.9995852	-214 -9	-8	.9995666	-224 -9	-8	.9995471	-232 -10	-9	.9995269	-244 -11	-9	.9995057	-255 -11	-9	.9994836	8.4
8.5	.9996711	-172 -7	-6	.9996564	-180 -8	-7	.9996410	-189 -7	-7	.9996250	-197 -9	-7	.9996082	-208 -9	-7	.9995907	8.5
8.6	.9997398	-139 -6	-5	.9997282	-148 -6	-5	.9997160	-151 -6	-5	.9997034	-159 -8	-6	.9996901	-165 -8	-6	.9996763	8.6
8.7	.9997946	-113 -5	-4	.9997854	-117 -5	-4	.9997759	-124 -5	-4	.9997659	-128 -6	-5	.9997555	-135 -6	-5	.9997446	8.7
8.8	.9998381	-89 -4	-4	.9998309	-93 -5	-4	.9998234	-97 -4	-4	.9998156	-103 -5	-4	.9998074	-107 -5	-4	.9997989	8.8
8.9	.9998727	-72 -4	-4	.9998671	-78 -4	-4	.9998612	-79 -4	-4	.9998550	-81 -4	-4	.9998486	-85 -4	-4	.9998419	8.9
9.0	.9999001	-58	-58	.9998957	-60	-60	.9998911	-63	-63	.9998863	-66	-66	.9998813	-69	-69	.9998760	9.0
9.1	.9999217	-45	-45	.9999183	-48	-48	.9999147	-50	-50	.9999110	-53	-53	.9999071	-55	-55	.9999030	9.1
9.2	.9999388	-37	-37	.9999361	-38	-38	.9999333	-39	-39	.9999304	-41	-41	.9999274	-43	-43	.9999242	9.2
9.3	.9999522	-26	-26	.9999501	-29	-29	.9999480	-32	-32	.9999457	-32	-32	.9999434	-35	-35	.9999409	9.3
9.4	.9999628	-24	-24	.9999612	-24	-24	.9999595	-25	-25	.9999578	-27	-27	.9999559	-28	-28	.9999540	9.4
9.5	.9999710	-17	-17	.9999698	-19	-19	.9999685	-19	-19	.9999672	-21	-21	.9999658	-21	-21	.9999643	9.5
9.6	.9999775	-14	-14	.9999766	-15	-15	.9999756	-15	-15	.9999745	-15	-15	.9999734	-16	-16	.9999723	9.6
9.7	.9999826	-12	-12	.9999818	-11	-11	.9999811	-12	-12	.9999803	-11	-11	.9999794	-13	-13	.9999786	9.7
9.8	.9999865	-8	-8	.9999859	-9	-9	.9999854	-10	-10	.9999848	-9	-9	.9999841	-11	-11	.9999834	9.8
9.9	.9999896	-7	-7	.9999891	-7	-7	.9999887	-8	-8	.9999882	-7	-7	.9999877	-9	-9	.9999872	9.9
10.0	.9999920	-6	-6	.9999916	-8	-8	.9999913	-8	-8	.9999909	-6	-6	.9999906	-8	-8	.9999902	10.0
10.1	.9999938	-4	-4	.9999936	-6	-6	.9999933	-5	-5	.9999930	-5	-5	.9999927	-8	-8	.9999924	10.1
10.2	.9999952	-4	-4	.9999950	-4	-4	.9999948	-4	-4	.9999946	-4	-4	.9999944	-4	-4	.9999942	10.2
10.3	.9999963			.9999962			.9999960			.9999959			.9999957			.9999956	10.3
10.4	.9999972			.9999971			.9999970			.9999969			.9999967			.9999966	10.4
10.5	.9999979			.9999978			.9999977			.9999976			.9999975			.9999974	10.5
10.6	.9999984			.9999983			.9999982			.9999982			.9999981			.9999980	10.6
10.7	.9999987			.9999987			.9999986			.9999986			.9999985			.9999985	10.7
10.8	.9999990			.9999990			.9999990			.9999989			.9999989			.9999989	10.8
10.9	.9999993			.9999992			.9999992			.9999992			.9999992			.9999991	10.9
11.0	.9999994			.9999994			.9999994			.9999994			.9999994			.9999993	11.0
11.1	.9999996			.9999996			.9999996			.9999995			.9999995			.9999995	11.1
11.2	.9999997			.9999997			.9999997			.9999996			.9999996			.9999996	11.2
11.3	.9999998			.9999997			.9999997			.9999997			.9999997			.9999997	11.3
11.4	.9999998			.9999998			.9999998			.9999998			.9999998			.9999998	11.4
11.5	.9999999			.9999999			.9999999			.9999998			.9999998			.9999998	11.5
11.6	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	11.6
11.7	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	11.7
11.8	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	11.8
11.9	1.0000000			1.0000000			1.0000000			1.0000000			.9999999			.9999999	11.9
12.0													1.0000000			1.0000000	12.0







u	p = 20.0		p = 20.2		p = 20.4		p = 20.6		p = 20.8		p = 21.0		u	
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$
.8													.8	
.9			.0000000			.0000000			.0000000			.0000000		.9
1.0	+1		.0000000			.0000000			.0000000			.0000000		1.0
1.1	+2		.0000001	+2		.0000001	+2		.0000000	+1		.0000000	+1	1.1
1.2	+3		.0000003	+6		.0000003	+3		.0000002	+3		.0000001	+3	1.2
1.3	+6		.0000011	+15		.0000009	+13		.0000007	+10		.0000005	+8	1.3
1.4	+8		.0000034	+25		.0000028	+22		.0000024	+18		.0000017	+20	1.4
1.5	+15		.0000095	+46		.0000080	+40		.0000068	+34		.0000049	+49	1.5
1.6	+20	+6	.0000241	+80	+6	.0000207	+68	+5	.0000178	+55	+4	.0000152	+107	1.6
1.7	+30	+13	.0000567	+133	+12	.0000492	+107	+9	.0000426	+88	+8	.0000368	+215	1.7
1.8	+40	+24	.0001240	+213	+21	.0001084	+164	+19	.0000947	+136	+17	.0000827	+304	1.8
1.9	+50	+43	.0002540	+350	+38	.0002240	+266	+34	.0001974	+215	+36	.0001738	+471	1.9
2.0	+60	+71	.0004909	+546	+65	.0004363	+454	+59	.0003876	+330	+52	.0003440	+604	2.0
2.1	+70	+115	.0009007	+813	+103	.0008065	+632	+94	.0007217	+485	+85	.0006454	+777	2.1
2.2	+80	+173	.0015762	+1213	+158	.0014212	+914	+144	.0012806	+703	+132	.0011532	+1026	2.2
2.3	+90	+251	.0026425	+1783	+231	.0023982	+1314	+212	.0021751	+1002	+195	.0019715	+1381	2.3
2.4	+100	+349	.0042601	+2583	+324	.0038900	+1903	+299	.0035498	+1385	+279	.0032375	+1882	2.4
2.5	+110	+469	.0066264	+3683	+438	.0060856	+2613	+409	.0055857	+1957	+380	.0051238	+2621	2.5
2.6	+120	+608	.0099738	+5183	+571	.0092097	+3583	+537	.0084993	+2657	+503	.0078392	+3582	2.6
2.7	+130	+765	.0145647	+7083	+722	.0135181	+4883	+681	.0125396	+3644	+644	.0116255	+4826	2.7
2.8	+140	+930	.0206830	+9583	+884	.0192899	+6683	+846	.0179808	+4997	+797	.0167514	+6576	2.8
2.9	+150	+1100	.0286227	+12883	+1053	.0268173	+9183	+1004	.0251123	+6727	+969	.0235032	+9126	2.9
3.0	+160	+1287	.0386736	+17083	+1218	.0363912	+12383	+1169	.0342257	+9127	+1122	.0321724	+12326	3.0
3.1	+170	+1419	.0511058	+23083	+1372	.0482866	+16683	+1325	.0455999	+12170	+1270	.0430411	+16326	3.1
3.2	+180	+1551	.0661538	+30583	+1506	.0627466	+22383	+1464	.0594858	+16119	+1419	.0563669	+21826	3.2
3.3	+190	+1653	.0840016	+39583	+1615	.0799671	+29683	+1576	.0760902	+21637	+1637	.0723670	+28826	3.3
3.4	+200	+1719	.1047699	+50583	+1688	.1000834	+39183	+1656	.0955626	+28427	+1623	.0912041	+38326	3.4
3.5	+210	+1744	.1285060	+63583	+1722	.1231599	+50683	+1698	.1179837	+37927	+1673	.1129747	+50826	3.5
3.6	+220	+1725	.1551784	+78583	+1713	.1491830	+64183	+1699	.1433575	+49127	+1683	.1377004	+65826	3.6
3.7	+230	+1664	.1846741	+95583	+1662	.1780582	+79683	+1657	.1716081	+62627	+1651	.1653231	+82826	3.7
3.8	+240	+1561	.2168017	+114583	+1668	.2096119	+96683	+1674	.2025796	+78127	+1578	.1957050	+99826	3.8
3.9	+250	+1421	.2512976	+135583	+1438	.2435965	+115683	+1453	.2360407	+95127	+1408	.2286314	+128826	3.9
4.0	+260	+1249	.2878354	+158583	+1275	.2796993	+136683	+1298	.2716931	+113127	+1319	.2638188	+160826	4.0
4.1	+270	+1053	.3260385	+183583	+1066	.3175547	+159683	+1116	.3091825	+131127	+1145	.3009248	+194826	4.1
4.2	+280	+841	.3654944	+210583	+879	.3567574	+184683	+915	.3481119	+149127	+946	.3395614	+239826	4.2
4.3	+290	+629	.4057692	+239583	+661	.3968777	+211683	+761	.3880564	+167127	+746	.3793091	+294826	4.3
4.4	+300	+398	.4464230	+270583	+441	.4374763	+239683	+484	.4285779	+185127	+525	.4197320	+359826	4.4
4.5	+310	+182	.4870239	+303583	+228	.4781184	+269683	+269	.4692398	+203127	+311	.4603923	+434826	4.5
4.6	+320	-21	.5271606	+338583	+21	.5183875	+299683	+64	.5096207	+221127	+166	.5008644	+519826	4.6
4.7	+330	-267	.5664533	+375583	-167	.5578957	+329683	-127	.5493255	+239127	-86	.5407467	+614826	4.7
4.8	+340	-872	.6045621	+414583	-335	.5962938	+359683	-298	.5879956	+257127	-266	.5796714	+719826	4.8
4.9	+350	-512	.6411935	+455583	-486	.6332769	+389683	-446	.6253157	+275127	-419	.6173133	+834826	4.9
5.0	+360	-628	.6761036	+498583	-606	.6685899	+419683	-571	.6610191	+293127	-541	.6533941	+959826	5.0
5.1	+370	-718	.7091003	+543583	-695	.7020286	+449683	-670	.6948897	+311127	-645	.6876864	+1094826	5.1
5.2	+380	-784	.7400425	+590583	-765	.7334402	+479683	-745	.7267634	+329127	-725	.7200141	+1239826	5.2
5.3	+390	-826	.7688378	+639583	-812	.7627216	+509683	-797	.7565257	+347127	-781	.7502517	+1394826	5.3
5.4	+400	-847	.7954397	+690583	-887	.7898160	+539683	-826	.7841096	+365127	-815	.7783218	+1559826	5.4
5.5	+410	-856	.8198424	+743583	-844	.8147087	+569683	-837	.8094913	+383127	-829	.8041910	+1734826	5.5
5.6	+420	-836	.8420759	+798583	-834	.8374220	+599683	-830	.8326852	+401127	-826	.8278656	+1919826	5.6
5.7	+430	-816	.8622008	+855583	-816	.8580101	+629683	-809	.8537385	+419127	-809	.8493860	+2114826	5.7
5.8	+440	-778	.8803020	+915583	-775	.8765528	+659683	-777	.8727259	+437127	-779	.8688211	+2319826	5.8
5.9	+450	-728	.8964839	+977583	-733	.8931507	+689683	-737	.8897438	+455127	-746	.8862629	+2534826	5.9
6.0	+460	-678	.9108649	+1042583	-684	.9079194	+719683	-688	.9049049	+473127	-694	.9018210	+2759826	6.0
6.1	+470	-625	.9235726	+1110583	-631	.9209849	+749683	-638	.9183335	+491127	-644	.9156176	+3004826	6.1
6.2	+480	-570	.9347400	+1181583	-577	.9324796	+779683	-584	.9301607	+509127	-591	.9277827	+3269826	6.2
6.3	+490	-515	.9445015	+1255583	-523	.9425377	+809683	-536	.9405209	+527127	-538	.9384504	+3544826	6.3
6.4	+500	-461	.9529900	+1333583	-469	.9512931	+839683	-477	.9495485	+545127	-484	.9477554	+3829826	6.4
6.5	+510	-410	.9603347	+1415583	-418	.9588759	+869683	-425	.9573746	+563127	-433	.9558300	+4124826	6.5



u	p = 20.0		p = 20.2		p = 20.4		p = 20.6		p = 20.8		p = 21.0		u		
	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)		$\delta_u^2$	$\delta_p^2$
6.5	-9938	-410	.9603347	-10205	-419	.9588759	-10476	-425	.9573746	-10750	-433	.9558300	-11027	-440	6.5
6.6	-8792	-362	.9666589	-9043	-369	.9654111	-9296	-376	.9641257	-9553	-384	.9628019	-9813	-391	6.6
6.7	-7731	-317	.9720788	-7961	-324	.9710167	-8195	-330	.9699215	-8432	-337	.9687925	-8671	-344	6.7
6.8	-6788	-273	.9767026	-6937	-282	.9758028	-7190	-288	.9748741	-7396	-295	.9739160	-7618	-301	6.8
6.9	-5872	-238	.9806297	-6060	-244	.9798709	-6253	-250	.9790871	-6449	-256	.9782777	-6648	-262	6.9
7.0	-5073	-204	.9839508	-5249	-210	.9833137	-5413	-215	.9826552	-5591	-220	.9819746	-5770	-226	7.0
7.1	-4351	-174	.9867477	-4511	-179	.9862152	-4684	-184	.9856642	-4813	-189	.9850945	-4960	-194	7.1
7.2	-3730	-148	.9890935	-3860	-169	.9886503	-3895	-166	.9881914	-4134	-161	.9877164	-4274	-165	7.2
7.3	-3174	-125	.9910533	-3258	-129	.9906859	-3496	-132	.9903052	-3526	-136	.9899109	-3649	-140	7.3
7.4	-2687	-106	.9926843	-2788	-108	.9923809	-2889	-111	.9920664	-2993	-115	.9917405	-3102	-118	7.4
7.5	-2267	-88	.9940365	-2351	-90	.9937870	-2439	-93	.9935283	-2631	-96	.9932599	-2623	-99	7.5
7.6	-1902	-73	.9951536	-1975	-75	.9949492	-2050	-78	.9947371	-2198	-80	.9945170	-2298	-83	7.6
7.7	-1590	-60	.9960732	-1652	-62	.9959064	-1717	-64	.9957331	-1792	-66	.9955533	-1851	-69	7.7
7.8	-1333	-50	.9968276	-1377	-51	.9966919	-1430	-53	.9965509	-1488	-55	.9964015	-1544	-57	7.8
7.9	-1098	-41	.9974443	-1141	-42	.9973344	-1187	-43	.9972201	-1235	-45	.9971013	-1283	-47	7.9
8.0	-908	-33	.9979469	-943	-34	.9978582	-992	-35	.9977658	-1021	-37	.9976698	-1063	-38	8.0
8.1	-748	-27	.9983552	-777	-28	.9982838	-809	-29	.9982094	-842	-30	.9981320	-875	-31	8.1
8.2	-611	-22	.9986858	-637	-23	.9986285	-683	-23	.9985688	-690	-24	.9985067	-719	-25	8.2
8.3	-500	-18	.9989527	-520	-18	.9989069	-543	-19	.9988592	-566	-20	.9988095	-589	-20	8.3
8.4	-407	-14	.9991676	-425	-16	.9991310	-441	-16	.9990930	-461	-16	.9990533	-479	-16	8.4
8.5	-330	-11	.9993400	-344	-12	.9993110	-360	-13	.9992807	-373	-13	.9992492	-389	-13	8.5
8.6	-267	-9	.9994780	-278	-9	.9994550	-290	-10	.9994311	-304	-10	.9994061	-317	-11	8.6
8.7	-215	-7	.9995882	-226	-7	.9995700	-235	-8	.9995511	-245	-8	.9995313	-255	-8	8.7
8.8	-174	-6	.9996758	-180	-6	.9996615	-188	-6	.9996466	-198	-6	.9996310	-205	-7	8.8
8.9	-138	-4	.9997454	-145	-5	.9997342	-152	-5	.9997225	-163	-5	.9997102	-164	-5	8.9
9.0	-111	-4	.9998005	-115	-4	.9997917	-120	-4	.9997826	-127	-4	.9997730	-133	-4	9.0
9.1	-89	-3	.9998441	-93	-3	.9998372	-97	-3	.9998300	-100	-3	.9998225	-104	-3	9.1
9.2	-70	-4	.9998784	-74	-4	.9998730	-76	-4	.9998674	-80	-4	.9998616	-84	-4	9.2
9.3	-56	-3	.9999053	-57	-3	.9999012	-58	-3	.9998968	-63	-3	.9998923	-66	-3	9.3
9.4	-43	-3	.9999265	-47	-3	.9999232	-47	-3	.9999199	-51	-3	.9999164	-53	-3	9.4
9.5	-36	-3	.9999430	-36	-3	.9999405	-35	-3	.9999379	-39	-3	.9999352	-41	-3	9.5
9.6	-26	-2	.9999559	-28	-2	.9999540	-28	-2	.9999520	-32	-2	.9999499	-33	-2	9.6
9.7	-22	-2	.9999660	-23	-2	.9999645	-24	-2	.9999629	-23	-2	.9999613	-25	-2	9.7
9.8	-17	-1	.9999738	-18	-1	.9999726	-17	-1	.9999715	-20	-1	.9999702	-20	-1	9.8
9.9	-14	-1	.9999798	-13	-1	.9999790	-15	-1	.9999781	-15	-1	.9999771	-16	-1	9.9
10.0	-9	-1	.9999845	-11	-1	.9999839	-12	-1	.9999832	-12	-1	.9999824	-11	-1	10.0
10.1	-8	-1	.9999881	-8	-1	.9999876	-8	-1	.9999871	-9	-1	.9999866	-9	-1	10.1
10.2	-7	-1	.9999909	-8	-1	.9999905	-8	-1	.9999901	-7	-1	.9999897	-7	-1	10.2
10.3	-4	-1	.9999931	-5	-1	.9999928	-5	-1	.9999925	-6	-1	.9999922	-6	-1	10.3
10.4	-4	-1	.9999947	-4	-1	.9999945	-4	-1	.9999943	-5	-1	.9999940	-5	-1	10.4
10.5			.9999960			.9999958			.9999956	-4		.9999955	-4		10.5
10.6			.9999969			.9999968			.9999967			.9999966			10.6
10.7			.9999977			.9999976			.9999975			.9999974			10.7
10.8			.9999983			.9999982			.9999981			.9999980			10.8
10.9			.9999987			.9999986			.9999986			.9999985			10.9
11.0			.9999990			.9999990			.9999989			.9999989			11.0
11.1			.9999993			.9999992			.9999992			.9999992			11.1
11.2			.9999994			.9999994			.9999994			.9999994			11.2
11.3			.9999996			.9999996			.9999995			.9999995			11.3
11.4			.9999997			.9999997			.9999997			.9999996			11.4
11.5			.9999998			.9999998			.9999997			.9999997			11.5
11.6			.9999998			.9999998			.9999998			.9999998			11.6
11.7			.9999999			.9999999			.9999999			.9999998			11.7
11.8			.9999999			.9999999			.9999999			.9999999			11.8
11.9			.9999999			.9999999			.9999999			.9999999			11.9
12.0			.9999999			.9999999			.9999999			.9999999			12.0
12.1			1.0000000			1.0000000			1.0000000			1.0000000			12.1

u	p = 21.0			p = 21.2			p = 21.4			p = 21.6			p = 21.8			p = 22.0	
	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	u
.9	.0000000																.9
1.0	.0000000																1.0
1.1	.0000000	+1		.0000000	+1		.0000000	+1		.0000000	+2		.0000000	+1		.0000000	1.1
1.2	.0000001	+3		.0000001	+2		.0000001	+2		.0000001	+5		.0000001	+3		.0000001	1.2
1.3	.0000005	+8		.0000004	+7		.0000003	+7		.0000003	+5		.0000002	+5		.0000002	1.3
1.4	.0000017	+20		.0000014	+17		.0000012	+14		.0000010	+13		.0000008	+11		.0000007	1.4
1.5	.0000049	+49		.0000041	+43		.0000035	+37		.0000030	+31		.0000025	+25		.0000021	1.5
1.6	.0000130	+107		.0000111	+94		.0000095	+83		.0000081	+73		.0000070	+62		.0000059	1.6
1.7	.0000318	+216	+7	.0000275	+190	+7	.0000238	+167		.0000205	+149	+6	.0000177	+132	+4	.0000152	1.7
1.8	.0000722	+404	+12	.0000629	+362	+11	.0000548	+324	+10	.0000478	+288	+9	.0000416	+256	+8	.0000362	1.8
1.9	.0001530	+714	+24	.0001345	+645	+22	.0001182	+581	+20	.0001039	+522	+17	.0000912	+470	+15	.0000800	1.9
2.0	.0003052	+1194	+42	.0002706	+1084	+35	.0002397	+986	+33	.0002122	+897	+30	.0001878	+812	+27	.0001661	2.0
2.1	.0005768	+1894	+69	.0005151	+1738	+64	.0004598	+1591	+57	.0004102	+1455	+50	.0003656	+1332	+48	.0003258	2.1
2.2	.0010378	+2775	+110	.0009334	+2562	+100	.0008390	+2447	+91	.0007537	+2343	+84	.0006766	+2279	+78	.0006071	2.2
2.3	.0017860	+3872	+164	.0016169	+3492	+151	.0014629	+3201	+139	.0013228	+2986	+128	.0011955	+2777	+115	.0010797	2.3
2.4	.0029509	+5316	+237	.0026880	+4449	+221	.0024472	+4098	+202	.0022266	+3847	+187	.0020247	+3634	+173	.0018401	2.4
2.5	.0046974	+7824	+380	.0043040	+7375	+307	.0039413	+6947	+284	.0036070	+6538	+268	.0032993	+6146	+245	.0030161	2.5
2.6	.0072263	+10169	+441	.0066575	+9648	+414	.0061301	+9148	+385	.0056412	+8659	+382	.0051865	+8192	+347	.0047694	2.6
2.7	.0107721	+12797	+571	.0099758	+12214	+537	.0092332	+11849	+507	.0085413	+11098	+475	.0078969	+10568	+437	.0072972	2.7
2.8	.0155976	+15625	+717	.0145155	+15600	+678	.0135012	+14488	+641	.0125510	+13787	+608	.0116616	+13198	+672	.0108294	2.8
2.9	.0219856	+18839	+860	.0205552	+17988	+850	.0192078	+17289	+790	.0179394	+16632	+751	.0167461	+16013	+712	.0156240	2.9
3.0	.0302267	+21377	+1032	.0283842	+20755	+966	.0266403	+20133	+948	.0249910	+19508	+902	.0234319	+18886	+862	.0219590	3.0
3.1	.0406055	+24018	+1188	.0382887	+23442	+1149	.0360861	+22852	+1099	.0339934	+22276	+1056	.0320063	+21883	+1014	.0301206	3.1
3.2	.0533856	+26278	+1331	.0505374	+26795	+1289	.0478181	+25294	+1248	.0452234	+24776	+1203	.0427490	+24244	+1160	.0403906	3.2
3.3	.0687935	+29032	+1457	.0653656	+27667	+1417	.0620795	+27275	+1377	.0589310	+26882	+1336	.0559161	+26427	+1298	.0530309	3.3
3.4	.0870046	+32148	+1655	.0829605	+28928	+1520	.0790684	+28878	+1484	.0753248	+28395	+1448	.0717259	+28058	+1412	.0682683	3.4
3.5	.1081305	+35534	+1820	.1034482	+29430	+1591	.0989251	+29388	+1561	.0945581	+28923	+1532	.0903444	+28501	+1501	.0862806	3.5
3.6	.1322098	+39133	+1647	.1268839	+29255	+1828	.1217206	+29338	+1804	.1167177	+28938	+1561	.1118730	+28858	+1557	.1071840	3.6
3.7	.1592024	+42933	+1633	.1532451	+28232	+1822	.1474499	+28492	+1608	.1418155	+28712	+1593	.1363404	+28894	+1577	.1310231	3.7
3.8	.1889883	+47077	+1579	.1824295	+26228	+1876	.1760284	+26569	+1572	.1697845	+27282	+1586	.1636972	+27605	+1568	.1577657	3.8
3.9	.2213698	+52370	+1463	.2142567	+23896	+1492	.2072929	+24485	+1497	.2004787	+25089	+1590	.1938145	+25535	+1501	.1873003	3.9
4.0	.2560783	+58197	+1356	.2484735	+20731	+1373	.2410059	+21457	+1388	.2336768	+22180	+1397	.2264873	+22911	+1406	.2194385	4.0
4.1	.2927843	+64617	+1197	.2847634	+17048	+1220	.2768646	+17881	+1241	.2690899	+18689	+1281	.2614412	+19471	+1278	.2539204	4.1
4.2	.3311090	+71268	+1014	.3227581	+12985	+1043	.3145114	+13898	+1071	.3063719	+14790	+1098	.2983422	+15659	+1122	.2904247	4.2
4.3	.3706395	+77292	+814	.3620513	+8692	+849	.3535480	+9648	+681	.3451329	+10687	+914	.3368091	+11617	+944	.3285798	4.3
4.4	.4109426	+83455	+605	.4022137	+4313	+643	.3935492	+8277	+660	.3849526	+8238	+718	.3764277	+7191	+701	.3679779	4.4
4.5	.4515802	+89456	+394	.4428074	-8	+434	.4340781	+935	+474	.4253961	+1881	+512	.4167654	+2828	+550	.4081896	4.5
4.6	.4921230	+95216	+188	.4834003	-4141	+229	.4747005	-3246	+269	.4660277	-2345	+309	.4573857	-1434	+348	.4487785	4.6
4.7	.5321632	+100320	-6	.5235791	-2938	+33	.5149983	-370	+73	.5064248	-6321	+112	.4978626	-5215	+151	.4893154	4.7
4.8	.5713250	+104838	-186	.5629601	-11428	-147	.5545804	-10696	-110	.5461898	-9951	-72	.5377920	-9187	-34	.5293907	4.8
4.9	.6092730	+108929	-344	.6011983	-14425	-309	.5930927	-19801	-274	.5849597	-13186	-289	.5768027	-12490	-204	.5686253	4.9
5.0	.6457181	+112421	-481	.6379940	-18932	-450	.6302249	-18419	-418	.6224140	-18884	-898	.6145644	-18326	-354	.6066795	5.0
5.1	.6804211	+115927	-593	.6730965	-19025	-567	.6657152	-18528	-539	.6582799	-18106	-811	.6507935	-17862	-488	.6432589	5.1
5.2	.7131944	+119504	-882	.7063065	-20404	-860	.6993527	-20121	-637	.6923352	-19815	-813	.6852564	-19454	-889	.6781187	5.2
5.3	.7439013	+123146	-747	.7374761	-21392	-729	.7309781	-21217	-710	.7244090	-21015	-691	.7177709	-20900	-671	.7110656	5.3
5.4	.7724536	+126819	-790	.7665065	-21919	-778	.7604818	-21843	-782	.7543810	-21745	-747	.7482054	-21629	-731	.7419568	5.4
5.5	.7988086	+129966	-812	.7933450	-22028	-802	.7878012	-22042	-792	.7821782	-22037	-781	.7764770	-22012	-769	.7706990	5.5
5.6	.8229640	+132598	-816	.8179807	-21772	-810	.8129164	-21878	-804	.8077717	-21856	-790	.8025474	-21836	-788	.7972443	5.6
5.7	.8449528	+135233	-805	.8404392	-21203	-802	.8358453	-21357	-799	.8311716	-21499	-705	.8264184	-21626	-790	.8215861	5.7
5.8	.8648383	+137881	-781	.8607774	-20377	-781	.8566385	-20585	-780	.8524216	-20780	-779	.8481268	-20965	-777	.8437542	5.8
5.9	.8827077	+140538	-746	.8790779	-19554	-748	.8753732	-19809	-750	.8715936	-19837	-782	.8677387	-20083	-769	.8638087	5.9
6.0	.8986672	+143211	-704	.8954430	-18188	-708	.8921480	-18454	-712	.8887819	-18731	-715	.8853443	-18988	-718	.8818348	6.0
6.1	.9128366	+145899	-656	.9099901	-18907	-662	.9070774	-17198	-667	.9040981	-17486	-671	.9010516	-17788	-676	.8979375	6.1
6.2	.9253448	+148599	-605	.9228465	-18578	-611	.9202870	-15878	-618	.9176657	-16173	-624	.9149821	-16467	-629	.9122356	6.2
6.3	.9363253	+151297	-552	.9341451	-14226	-559	.9319088	-14826	-568	.9296160	-14886	-573	.9272659	-15124	-579	.9248579	6.3
6.4	.9459131	+153996	-499	.9440209	-12888	-507	.9420780	-13188	-514	.9400837	-13477	-521	.9380373	-13772	-528	.9359381	6.4
6.5	.9542413	+156695	-448	.9526079	-11587	-453	.9509289	-11868	-488	.9492037	-12168	-470	.9474315	-12438	-477	.9456117	6.5

u	p = 22.0		p = 22.2		p = 22.4		p = 22.6		p = 22.8		p = 23.0		u	
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$
.9													.9	
1.0													1.0	
1.1			.0000000			.0000000			.0000000			.0000000		1.1
1.2	+2		.0000000	+1		.0000000	+1		.0000000	+1		.0000000	+1	1.2
1.3	+3		.0000002	+3		.0000001	+3		.0000001	+2		.0000001	+2	1.3
1.4	+4		.0000006	+5		.0000005	+6		.0000004	+6		.0000003	+5	1.4
1.5	+9													1.5
1.6	+24		.0000018	+21		.0000015	+18		.0000013	+15		.0000011	+12	1.6
1.7	+16		.0000051	+15		.0000043	+12		.0000037	+12		.0000031	+9	1.7
1.8	+30		.0000131	+27		.0000113	+23		.0000097	+20		.0000083	+17	1.8
1.9	+45	+4	.0000314	+48	+7	.0000273	+48	+6	.0000237	+37	+5	.0000206	+32	1.9
2.0	+62	+7	.0000701	+74	+12	.0000614	+79	+11	.0000538	+63	+10	.0000471	+59	2.0
2.1	+81	+13												2.1
2.2	+102		.0001468	+110	+21	.0001296	+102	+19	.0001144	+96	+17	.0001009	+89	2.2
2.3	+127	+24	.0002901	+158	+37	.0002581	+147	+34	.0002295	+139	+31	.0002040	+127	2.3
2.4	+157	+41	.0005444	+206	+61	.0004878	+196	+57	.0004369	+183	+51	.0003911	+174	2.4
2.5	+193	+68	.0009746	+266	+98	.0008792	+244	+89	.0007927	+235	+81	.0007143	+224	2.5
2.6	+235	+106	.0016714	+351	+145	.0015172	+329	+135	.0013765	+309	+123	.0012481	+296	2.6
2.7	+283	+159												2.7
2.8	+337	+227	.0027556	+448	+211	.0025162	+415	+196	.0022964	+384	+180	.0020946	+340	2.8
2.9	+397	+313	.0043818	+548	+294	.0040235	+501	+273	.0036925	+444	+254	.0033869	+400	2.9
3.0	+471	+419	.0067394	+658	+393	.0062209	+600	+369	.0057393	+539	+344	.0052921	+483	3.0
3.1	+560	+541	.0100513	+793	+511	.0093243	+743	+480	.0086453	+690	+453	.0080116	+615	3.1
3.2	+664	+678	.0145697	+951	+642	.0135796	+813	+608	.0126503	+747	+576	.0117786	+646	3.2
3.3	+784	+823												3.3
3.4	+920	+973	.0205684	+1116	+784	.0192562	+1042	+748	.0180188	+943	+712	.0168526	+800	3.4
3.5	+1073	+1020	.0283322	+1308	+932	.0266370	+1190	+893	.0250311	+1078	+804	.0235106	+900	3.5
3.6	+1245	+1120	.0381443	+1520	+1079	.0360058	+1327	+1038	.0339712	+1207	+999	.0320365	+1000	3.6
3.7	+1437	+1258	.0502712	+1760	+1216	.0476333	+1500	+1177	.0451130	+1388	+1138	.0427066	+1099	3.7
3.8	+1660	+1375	.0649481	+2030	+1338	.0617618	+1710	+1301	.0587055	+1566	+1264	.0557757	+1227	3.8
3.9	+1915	+1469												3.9
4.0	+2202	+1632	.0823638	+2340	+1437	.0785906	+2040	+1494	.0749578	+1815	+1370	.0714620	+1337	4.0
4.1	+2613	+1632	.1026481	+2690	+1606	.0982628	+2310	+1478	.0940254	+2060	+1450	.0899329	+1422	4.1
4.2	+3147	+1659	.1258617	+3090	+1640	.1208543	+2610	+1520	.1159990	+2330	+1499	.1112935	+1476	4.2
4.3	+3805	+1649	.1519892	+3540	+1538	.1463664	+2940	+1526	.1408962	+2680	+1512	.1355773	+1497	4.3
4.4	+4587	+1600	.1809362	+4050	+1498	.1747219	+3300	+1494	.1686570	+3040	+1488	.1627408	+1481	4.4
4.5	+5493	+1414												4.5
4.6	+6535	+1294	.2125310	+4620	+1420	.2057656	+4620	+1425	.1991427	+5110	+1427	.1926625	+4620	4.6
4.7	+7713	+1145	.2465290	+5280	+1308	.2392685	+5280	+1321	.2321400	+5790	+1331	.2251447	+5280	4.7
4.8	+9037	+1145	.2826217	+6000	+1160	.2749353	+6000	+1196	.2673676	+6720	+1204	.2599620	+6000	4.8
4.9	+10507	+973	.3204477	+6840	+1000	.3124157	+7800	+1026	.3044863	+8760	+1051	.2966619	+9000	4.9
5.0	+12133	+734	.3596065	+7800	+816	.3513167	+9000	+847	.3431117	+10000	+877	.3349943	+9000	5.0
5.1	+13915	+536												5.1
5.2	+15853	+386	.3996724	+8940	+622	.3912175	+10200	+656	.3828281	+11200	+690	.3745078	+10200	5.2
5.3	+17947	+227	.4402099	+10200	+423	.4316836	+11500	+460	.4232033	+12600	+496	.4147726	+11500	5.3
5.4	+20197	+189	.4807872	+11600	+227	.4722818	+13000	+265	.4638028	+14100	+302	.4553540	+13000	5.4
5.5	+22603	+3	.5209897	+13200	+40	.5125928	+14700	+77	.5042035	+15800	+114	.4958257	+14700	5.5
5.6	+25167	+169	.5604310	+15000	-138	.5522234	+16600	-98	.5440060	+17800	-63	.5357824	+16600	5.6
5.7	+27889	-322												5.7
5.8	+30761	-454	.5987623	+17000	-289	.5908161	+18600	-257	.5828443	+20000	-224	.5748502	+18600	5.8
5.9	+33793	-454	.6356788	+19000	-426	.6280562	+20400	-395	.6203940	+21600	-366	.6126953	+20400	5.9
6.0	+36985	-564	.6709247	+21000	-539	.6636768	+22400	-513	.6563776	+23400	-496	.6490297	+21000	6.0
6.1	+40337	-661	.7042952	+23000	-629	.6974619	+24600	-609	.6905679	+24600	-685	.6836153	+23000	6.1
6.2	+43849	-716	.7356367	+25000	-697	.7292469	+27000	-680	.7227890	+26400	-661	.7162651	+25000	6.2
6.3	+47511	-757												6.3
6.4	+51323	-780	.7648452	+27000	-744	.7589170	+29400	-730	.7529157	+28200	-716	.7468429	+27000	6.4
6.5	+55285	-780	.7918631	+29000	-771	.7864049	+32000	-781	.7808706	+30000	-750	.7752613	+29000	6.5
6.6	+59397	-785	.8166754	+31000	-779	.8116866	+34800	-773	.8066206	+32000	-766	.8014780	+31000	6.6
6.7	+63659	-775	.8393041	+33000	-773	.8347767	+37800	-760	.8301724	+34000	-766	.8254915	+33000	6.7
6.8	+68071	-758	.8598033	+35000	-753	.8557227	+41000	-752	.8515668	+36000	-761	.8473358	+35000	6.8
6.9	+72633	-720												6.9
7.0	+77355	-630	.8782534	+37000	-722	.8745997	+44400	-724	.8708736	+39000	-725	.8670749	+37000	7.0
7.1	+82227	-630	.8947554	+40000	-634	.8915048	+48000	-688	.8881856	+42000	-691	.8847972	+40000	7.1
7.2	+87259	-635	.9094257	+43000	-640	.9065517	+52000	-645	.9036133	+46000	-649	.9006100	+43000	7.2
7.3	+92441	-566												7.3
7.4	+97773	-566	.9223913	+46000	-592	.9198655	+56000	-598	.9172800	+50000	-608	.9146342	+46000	7.4
7.5	+103255	-635	.9337853	+50000	-542	.9315785	+60000	-548	.9293168	+54000	-554	.9269997	+50000	7.5
7.6	+108887	-484												7.6
7.7	+114669		.9437434	+54000	-491	.9418260	+64000	-498	.9398588	+58000	-505	.9378412	+54000	7.7
7.8	+120601													7.8
7.9	+126683													7.9
8.0	+132915													8.0









u	p = 24.0		p = 24.2		p = 24.4		p = 24.6		p = 24.8		p = 25.0		u	
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$
1.1													1.1	
1.2			.0000000			.0000000			.0000000			.0000000		
1.3	+1		.0000000	+1		.0000000	+1		.0000000	+1		.0000000	+1	
1.4	+2		.0000001	+1		.0000001	+1		.0000001	+1		.0000000	+1	
1.5	+5		.0000003	+5		.0000003	+3		.0000002	+3		.0000002	+3	
1.6	+13		.0000010	+11		.0000008	+11		.0000007	+9		.0000005	+7	
1.7	+35		.0000028	+29		.0000024	+23		.0000021	+21		.0000018	+19	
1.8	+68		.0000075	+60		.0000065	+52		.0000056	+47		.0000048	+42	
1.9	+138	+4	.0000182	+123	+4	.0000158	+111		.0000138	+95		.0000120	+83	
2.0	+264	+8	.0000412	+237	+7	.0000362	+212	+6	.0000318	+199	+5	.0000278	+172	+5
2.1	+470	+14	.0000879	+426	+13	.0000778	+374	+11	.0000688	+345	+10	.0000608	+313	+9
2.2	+797	+25	.0001772	+726	+22	.0001578	+664	+20	.0001406	+603	+18	.0001251	+550	+16
2.3	+1287	+42	.0003391	+1183	+35	.0003042	+1085	+34	.0002727	+996	+31	.0002444	+912	+28
2.4	+1999	+67	.0006193	+1929	+61	.0005591	+1701	+55	.0005044	+1571	+51	.0004549	+1450	+46
2.5	+2951	+102	.0010835	+2748	+95	.0009841	+2555	+87	.0008932	+2375	+80	.0008104	+2203	+73
2.6	+4219	+151	.0018225	+4219	+130	.0016646	+3631	+128	.0015195	+3274	+110	.0013864	+3028	+110
2.7	+5798	+214	.0029558	+5468	+198	.0027142	+5143	+183	.0024911	+4839	+172	.0022852	+4549	+159
2.8	+7719	+291	.0046354	+7916	+273	.0042783	+6927	+256	.0039466	+6586	+240	.0036389	+6180	+224
2.9	+9957	+385	.0070466	+9489	+364	.0065351	+9936	+341	.0060577	+8598	+322	.0056125	+8174	+303
3.0	+12466	+494	.0104067	+11944	+469	.0096955	+11434	+448	.0090286	+10977	+418	.0084035	+10455	+397
3.1	+15189	+616	.0149612	+14908	+586	.0139993	+14058	+558	.0130932	+13118	+529	.0122400	+12298	+504
3.2	+17959	+746	.0209765	+17386	+714	.0197089	+16816	+683	.0185096	+16250	+659	.0173753	+15692	+622
3.3	+20714	+880	.0287304	+20957	+843	.0271001	+19387	+812	.0255510	+18024	+779	.0240798	+16842	+747
3.4	+23289	+1011	.0384993	+22769	+976	.0364500	+22240	+942	.0344948	+21707	+908	.0326305	+21167	+875
3.5	+25539	+1138	.0505451	+26092	+1099	.0480239	+24630	+1066	.0456093	+24155	+1033	.0432979	+23670	+1000
3.6	+27326	+1240	.0651001	+26978	+1209	.0620608	+26612	+1177	.0591393	+26226	+1146	.0563323	+25823	+1114
3.7	+28625	+1323	.0823529	+28306	+1297	.0787589	+28900	+1270	.0752919	+27789	+1241	.0719490	+27494	+1213
3.8	+29646	+1383	.1024363	+28966	+1360	.0982630	+28861	+1337	.0942234	+28727	+1314	.0903151	+28567	+1289
3.9	+28899	+1400	.1254163	+28891	+1392	.1206532	+28891	+1376	.1160276	+28960	+1368	.1115379	+28945	+1330
4.0	+27804	+1492	.1512854	+28049	+1393	.1459375	+28250	+1382	.1407278	+28434	+1371	.1356552	+28577	+1358
4.1	+26038	+1360	.1799594	+26438	+1358	.1740477	+26806	+1355	.1682714	+27142	+1350	.1626302	+27443	+1344
4.2	+23564	+1285	.2112772	+24664	+1290	.2048385	+24664	+1294	.1985292	+23567	+1297	.1923495	+22557	+1295
4.3	+20466	+1179	.2450060	+21136	+1191	.2380917	+21179	+1202	.2312975	+22295	+1211	.2246245	+22290	+1219
4.4	+16854	+1046	.2808484	+17625	+1064	.2735228	+18373	+1081	.2663053	+18098	+1097	.2591975	+18900	+1112
4.5	+12859	+891	.3184533	+13702	+915	.3107912	+14529	+938	.3032229	+13838	+950	.2957505	+16127	+979
4.6	+8926	+721	.3574284	+9311	+749	.3495125	+10383	+776	.3416743	+11247	+802	.3339162	+12098	+827
4.7	+4238	+542	.3973546	+5193	+573	.3892723	+6086	+603	.3812504	+6972	+632	.3732917	+7832	+661
4.8	+14	+359	.4378001	+894	+302	.4296407	+1773	+427	.4215237	+2654	+456	.4134524	+5532	+487
4.9	-4985	+180	.4783350	-3261	+213	.4701864	-2429	+246	.4620624	-1372	+279	.4539663	-719	+311
5.0	-7929	+9	.5185438	-714	+41	.5104901	-6372	+74	.5024439	-5582	+106	.4944083	-4782	+139
5.1	-11373	-150	.5580372	-1968	-110	.5501566	-9989	-87	.5422672	-9274	-56	.5343721	-8545	-25
5.2	-14479	-292	.5964620	-13794	-263	.5888242	-13186	-234	.5811631	-12564	-205	.5734814	-11923	-175
5.3	-16902	-415	.6335074	-16418	-389	.6261732	-16917	-363	.6188026	-16392	-330	.6113984	-14851	-309
5.4	-18915	-618	.6689110	-18339	-495	.6619305	-18141	-472	.6549029	-17720	-440	.6478303	-17286	-425
5.5	-20416	-599	.7024607	-20147	-589	.6958737	-19888	-561	.6892306	-19547	-541	.6825334	-19217	-521
5.6	-21427	-669	.7339957	-21427	-643	.7278311	-21089	-629	.7216036	-20662	-618	.7153148	-20264	-606
5.7	-21967	-791	.7634050	-21894	-889	.7576816	-21803	-877	.7518904	-21691	-664	.7460328	-21662	-661
5.8	-22092	-724	.7906249	-22102	-715	.7853518	-22095	-706	.7800081	-22074	-697	.7745946	-22084	-687
5.9	-21841	-730	.8156346	-21926	-725	.8108124	-21993	-719	.8059184	-22059	-713	.8009530	-22089	-706
6.0	-21277	-722	.8384517	-21422	-719	.8340735	-21856	-718	.8296237	-21676	-713	.8251025	-21768	-709
6.1	-20450	-702	.8591266	-20644	-702	.8551791	-20830	-701	.8511614	-21003	-700	.8470737	-21168	-690
6.2	-19420	-672	.8777371	-19633	-674	.8742017	-19876	-676	.8705988	-20094	-677	.8669281	-20300	-678
6.3	-18247	-635	.8943823	-18166	-639	.8912367	-18760	-642	.8880268	-18919	-643	.8847525	-19414	-648
6.4	-16952	-593	.9091779	-17228	-608	.9063967	-17500	-602	.9035552	-17768	-607	.9006531	-18032	-611
6.5	-15609	-548	.9222507	-15891	-553	.9198067	-16173	-559	.9173068	-16462	-564	.9147505	-16728	-569
6.6	-14242	-501	.9337344	-14828	-507	.9315994	-14811	-513	.9294132	-15094	-510	.9271751	-15676	-524
6.7	-12980	-453	.9437653	-13168	-460	.9419110	-13447	-466	.9400102	-13727	-472	.9380621	-14096	-478
6.8	-11872	-407	.9524794	-11840	-413	.9508779	-12109	-420	.9492345	-12380	-426	.9475485	-12653	-432
6.9	-10813	-362	.9600095	-10566	-368	.9586339	-10823	-375	.9572208	-11081	-381	.9557696	-11340	-387
7.0	-9124	-319	.9664830	-9362	-323	.9653076	-9602	-332	.9640990	-9844	-338	.9628567	-10091	-344



u	p = 24.0		p = 24.2		p = 24.4		p = 24.6		p = 24.8		p = 25.0		u		
	$\delta_u^3$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^3$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^3$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^3$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^3$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
7.0	-9124 -85	-519	.9664830	-9369 -80	-326	.9653076	-9602 -78	-332	.9640990	-9644 -76	-338	.9628567	-10091 -75	-344	7.0
7.1	-6020 -89	-280	.9720203	-8238 -88	-286	.9710211	-8489 -87	-291	.9699928	-8685 -84	-297	.9689347	-8911 -83	-303	7.1
7.2	-7002 -92	-248	.9767338	-7201 -60	-249	.9758887	-7405 -90	-254	.9750181	-7610 -90	-259	.9741216	-7820 -90	-265	7.2
7.3	-6076 -98	-210	.9807272	-6258 -92	-215	.9800158	-6441 -92	-220	.9792824	-6628 -92	-225	.9785265	-6818 -91	-230	7.3
7.4	-5243 -90	-180	.9840948	-5483 -90	-185	.9834988	-5567 -81	-189	.9828839	-5735 -92	-194	.9822496	-5905 -92	-198	7.4
7.5	-4438 -85	-164	.9869221	-4640 -87	-158	.9864251	-4786 -88	-162	.9859119	-4934 -89	-166	.9853822	-5087 -89	-170	7.5
7.6	-3535 -80	-130	.9892854	-3963 -85	-134	.9888728	-4060 -89	-137	.9884465	-4222 -83	-141	.9880061	-4387 -84	-145	7.6
7.7	-2527 -73	-110	.9912525	-3366 -75	-113	.9909115	-3478 -76	-116	.9905589	-3693 -77	-119	.9901943	-3799 -79	-122	7.7
7.8	-1749 -67	-92	.9928830	-2843 -69	-95	.9926024	-2941 -79	-97	.9923120	-3041 -72	-100	.9920116	-3144 -73	-103	7.8
7.9	-2311 -61	-77	.9942292	-2392 -62	-79	.9939992	-2476 -63	-81	.9937610	-2561 -65	-84	.9935145	-2649 -67	-86	7.9
8.0	-1931 -54	-64	.9953362	-2002 -55	-66	.9951484	-2072 -57	-68	.9949539	-2146 -58	-70	.9947525	-2223 -60	-72	8.0
8.1	-1608 -48	-58	.9962430	-1666 -50	-54	.9960904	-1729 -51	-56	.9959322	-1792 -51	-58	.9957682	-1855 -53	-59	8.1
8.2	-1333 -43	-48	.9969832	-1364 -44	-45	.9968595	-1433 -45	-46	.9967313	-1486 -46	-47	.9965984	-1542 -47	-49	8.2
8.3	-1100 -37	-35	.9975850	-1141 -38	-36	.9974853	-1166 -39	-38	.9973818	-1230 -40	-39	.9972744	-1275 -42	-40	8.3
8.4	-904 -32	-29	.9980727	-959 -33	-30	.9979925	-974 -34	-31	.9979093	-1012 -35	-32	.9978229	-1051 -36	-33	8.4
8.5	-740 -27	-23	.9984665	-769 -28	-24	.9984023	-799 -29	-25	.9983356	-830 -30	-26	.9982663	-861 -31	-27	8.5
8.6	-605 -23	-16	.9987834	-627 -24	-19	.9987322	-653 -25	-20	.9986789	-677 -26	-21	.9986236	-705 -27	-21	8.6
8.7	-490 -20	-15	.9990376	-510 -21	-16	.9989968	-529 -22	-16	.9989545	-552 -23	-17	.9989104	-572 -23	-17	8.7
8.8	-397 -17	-12	.9992408	-412 -18	-12	.9992085	-430 -19	-13	.9991749	-446 -19	-13	.9991400	-465 -19	-14	8.8
8.9	-319 -14	-10	.9994028	-333 -14	-10	.9993772	-345 -16	-10	.9993507	-361 -16	-11	.9993231	-375 -16	-11	8.9
9.0	-258 -12	-7	.9995315	-268 -12	-8	.9995114	-280 -13	-8	.9994904	-289 -13	-8	.9994687	-302 -13	-9	9.0
9.1	-205 -10	-6	.9996334	-214 -10	-6	.9996176	-223 -10	-6	.9996012	-233 -10	-7	.9995841	-242 -11	-7	9.1
9.2	-164 -8	-5	.9997139	-171 -8	-5	.9997015	-177 -8	-5	.9996887	-186 -8	-5	.9996753	-195 -9	-6	9.2
9.3	-130 -7	-4	.9997773	-136 -7	-4	.9997677	-145 -7	-4	.9997576	-147 -7	-4	.9997472	-155 -7	-4	9.3
9.4	-105 -7		.9998271	-109 -6		.9998196	-113 -6		.9998118	-118 -6		.9998036	-121 -6		9.4
9.5	-84 -5		.9998660	-84 -5		.9998602	-88 -5		.9998542	-93 -5		.9998479	-98 -5		9.5
9.6	-65 -4		.9998965	-65 -4		.9998920	-70 -4		.9998873	-73 -4		.9998824	-76 -4		9.6
9.7	-50 -5		.9999202	-53 -5		.9999168	-56 -5		.9999131	-57 -4		.9999094	-61 -4		9.7
9.8	-40 -4		.9999386	-41 -4		.9999360	-43 -4		.9999332	-46 -4		.9999303	-47 -4		9.8
9.9	-31		.9999529	-32		.9999509	-34		.9999487	-34		.9999465	-36		9.9
10.0	-25		.9999640	-26		.9999624	-26		.9999608	-29		.9999591	-30		10.0
10.1	-18		.9999725	-20		.9999713	-21		.9999700	-20		.9999687	-21		10.1
10.2	-15		.9999790	-15		.9999781	-16		.9999772	-16		.9999762	-17		10.2
10.3	-12		.9999840	-12		.9999833	-13		.9999826	-12		.9999819	-13		10.3
10.4	-9		.9999879	-10		.9999874	-11		.9999868	-10		.9999863	-11		10.4
10.5	-7		.9999908	-8		.9999904	-9		.9999900	-6		.9999896	-9		10.5
10.6	-6		.9999931	-6		.9999928	-7		.9999925	-6		.9999921	-7		10.6
10.7	-5		.9999948	-5		.9999945	-5		.9999943	-5		.9999941	-5		10.7
10.8	-4		.9999961	-4		.9999959	-4		.9999957	-4		.9999955	-4		10.8
10.9			.9999970			.9999969			.9999968			.9999966			10.9
11.0			.9999978			.9999977			.9999976			.9999975			11.0
11.1			.9999983			.9999983			.9999982			.9999981			11.1
11.2			.9999988			.9999987			.9999987			.9999986			11.2
11.3			.9999991			.9999990			.9999990			.9999989			11.3
11.4			.9999993			.9999993			.9999993			.9999992			11.4
11.5			.9999995			.9999995			.9999994			.9999994			11.5
11.6			.9999996			.9999996			.9999996			.9999996			11.6
11.7			.9999997			.9999997			.9999997			.9999997			11.7
11.8			.9999998			.9999998			.9999998			.9999998			11.8
11.9			.9999998			.9999998			.9999998			.9999998			11.9
12.0			.9999999			.9999999			.9999999			.9999999			12.0
12.1			.9999999			.9999999			.9999999			.9999999			12.1
12.2			.9999999			.9999999			.9999999			.9999999			12.2
12.3			1.0000000			1.0000000			1.0000000			1.0000000			12.3
12.4															12.4



Table with columns for u, p values (26.0, 26.2, 26.4, 26.6, 26.8, 27.0), I(u, p) function values, and derivatives (delta\_u^2, delta\_u^4, delta\_p^2, delta\_p^4). Rows range from u=1.2 to 7.0.









u	p = 28.0		p = 28.2		p = 28.4		p = 28.6		p = 28.8		p = 29.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
1.4													1.4		
1.5			.0000000			.0000000			.0000000			.0000000			1.5
1.6	+1		.0000000	+1		.0000000	+1		.0000000	+1		.0000000	+1		1.6
1.7	+2		.0000001	+2		.0000001	+2		.0000001	+2		.0000001	+2		1.7
1.8	+3		.0000004	+3		.0000003	+3		.0000002	+3		.0000002	+3		1.8
1.9	+4		.0000010	+4		.0000009	+4		.0000007	+4		.0000006	+4		1.9
2.0	+5		.0000027	+5		.0000024	+5		.0000018	+5		.0000016	+5		2.0
2.1	+6		.0000068	+6		.0000060	+6		.0000046	+6		.0000040	+6		2.1
2.2	+7		.0000159	+7		.0000140	+7		.0000109	+7		.0000096	+7		2.2
2.3	+8	+6	.0000349	+8	+6	.0000310	+8	+6	.0000244	+8	+6	.0000216	+8	+6	2.3
2.4	+9	+10	.0000725	+9	+9	.0000648	+9	+8	.0000517	+9	+8	.0000461	+9	+6	2.4
2.5	+10	+17	.0001433	+10	+16	.0001288	+10	+14	.0001158	+10	+13	.0001040	+10	+11	2.5
2.6	+11	+29	.0002704	+11	+26	.0002446	+11	+24	.0002211	+11	+22	.0001997	+11	+18	2.6
2.7	+12	+45	.0004891	+12	+42	.0004448	+12	+38	.0004044	+12	+35	.0003674	+12	+30	2.7
2.8	+13	+59	.0008507	+13	+54	.0007778	+13	+50	.0007107	+13	+45	.0006492	+13	+41	2.8
2.9	+14	+103	.0014268	+14	+95	.0013109	+14	+89	.0012039	+14	+82	.0011052	+14	+77	2.9
3.0	+15	+146	.0023132	+15	+137	.0021355	+15	+128	.0019706	+15	+119	.0018177	+15	+114	3.0
3.1	+16	+202	.0036339	+16	+190	.0033700	+16	+178	.0031239	+16	+167	.0028946	+16	+157	3.1
3.2	+17	+270	.0055432	+17	+255	.0051629	+17	+241	.0048067	+17	+227	.0044731	+17	+214	3.2
3.3	+18	+351	.0082263	+18	+333	.0076935	+18	+315	.0071922	+18	+299	.0067208	+18	+283	3.3
3.4	+19	+443	.0118978	+19	+422	.0111709	+19	+402	.0104841	+19	+383	.0098356	+19	+364	3.4
3.5	+20	+544	.0167976	+20	+521	.0158302	+20	+498	.0149128	+20	+477	.0140429	+20	+456	3.5
3.6	+21	+651	.0231837	+21	+626	.0219266	+21	+602	.0207296	+21	+578	.0195905	+21	+555	3.6
3.7	+22	+760	.0313235	+22	+735	.0297257	+22	+710	.0281988	+22	+684	.0267404	+22	+660	3.7
3.8	+23	+867	.0414814	+23	+841	.0394932	+23	+816	.0375865	+23	+790	.0357588	+23	+765	3.8
3.9	+24	+965	.0539069	+24	+941	.0514818	+24	+916	.0491483	+24	+891	.0469039	+24	+868	3.9
4.0	+25	+1051	.0688203	+25	+1028	.0659181	+25	+1005	.0631163	+25	+982	.0604128	+25	+958	4.0
4.1	+26	+1118	.0863995	+26	+1008	.0829885	+26	+978	.0796853	+26	+957	.0764879	+26	+938	4.1
4.2	+27	+1162	.1067684	+27	+1158	.1028279	+27	+1150	.0990004	+27	+1113	.0952841	+27	+1096	4.2
4.3	+28	+1181	.1299872	+28	+1169	.1255089	+28	+1138	.1211464	+28	+1145	.1168985	+28	+1132	4.3
4.4	+29	+1171	.1560450	+29	+1185	.1510346	+29	+1139	.1461400	+29	+1131	.1413606	+29	+1143	4.4
4.5	+30	+1154	.1848569	+30	+1133	.1793342	+30	+1132	.1739248	+30	+1130	.1686283	+30	+1127	4.5
4.6	+31	+1068	.2162641	+31	+1073	.2102631	+31	+1078	.2043699	+31	+1081	.1985849	+31	+1084	4.6
4.7	+32	+977	.2500376	+32	+989	.2436055	+32	+987	.2372731	+32	+997	.2310414	+32	+1014	4.7
4.8	+33	+884	.2858856	+33	+878	.2790811	+33	+894	.2723660	+33	+906	.2657416	+33	+920	4.8
4.9	+34	+783	.3234634	+34	+752	.3163548	+34	+771	.3093232	+34	+789	.3023716	+34	+806	4.9
5.0	+35	+589	.3623853	+35	+611	.3550480	+35	+633	.3477739	+35	+655	.3405654	+35	+675	5.0
5.1	+36	+437	.4022385	+36	+482	.3947523	+36	+486	.3873146	+36	+510	.3799279	+36	+533	5.1
5.2	+37	+282	.4425969	+37	+308	.4350432	+37	+334	.4275230	+37	+360	.4200387	+37	+384	5.2
5.3	+38	+150	.4830348	+38	+157	.4754943	+38	+183	.4679722	+38	+209	.4604709	+38	+235	5.3
5.4	+39	-15	.5231402	+39	+11	.5156901	+39	+37	.5082437	+39	+63	.5008036	+39	+88	5.4
5.5	+40	-149	.5625260	+40	-125	.5552380	+40	-100	.5479400	+40	-73	.5406345	+40	-50	5.5
5.6	+41	-270	.6008400	+41	-247	.5937785	+41	-234	.5866945	+41	-208	.5795904	+41	-178	5.6
5.7	+42	-375	.6377717	+42	-354	.6309925	+42	-324	.6241800	+42	-313	.6173363	+42	-271	5.7
5.8	+43	-482	.6730580	+43	-444	.6666077	+43	-428	.6601149	+43	-408	.6535812	+43	-389	5.8
5.9	+44	-531	.7064859	+44	-516	.7004013	+44	-501	.6942665	+44	-485	.6880833	+44	-469	5.9
6.0	+45	-582	.7378936	+45	-571	.7322015	+45	-558	.7264536	+45	-548	.7206510	+45	-533	6.0
6.1	+46	-617	.7671692	+46	-608	.7618870	+46	-595	.7565449	+46	-589	.7511440	+46	-578	6.1
6.2	+47	-635	.7942478	+47	-620	.7893841	+47	-622	.7844581	+47	-615	.7794706	+47	-608	6.2
6.3	+48	-640	.8191085	+48	-630	.8146638	+48	-632	.8101559	+48	-627	.8055852	+48	-622	6.3
6.4	+49	-632	.8417687	+49	-638	.8377365	+49	-626	.8336414	+49	-626	.8294837	+49	-624	6.4
6.5	+50	-614	.8622792	+50	-614	.8586471	+50	-614	.8549535	+50	-614	.8511986	+50	-613	6.5
6.6	+51	-587	.8807186	+51	-589	.8774693	+51	-591	.8741609	+51	-592	.8707933	+51	-583	6.6
6.7	+52	-553	.8971875	+52	-559	.8942999	+52	-561	.8913564	+52	-563	.8883564	+52	-566	6.7
6.8	+53	-517	.9118029	+53	-521	.9092534	+53	-525	.9066514	+53	-529	.9039965	+53	-533	6.8
6.9	+54	-477	.9246933	+54	-482	.9224565	+54	-487	.9201710	+54	-491	.9178364	+54	-495	6.9
7.0	+55	-438	.9359944	+55	-441	.9340437	+55	-446	.9320486	+55	-451	.9300083	+55	-456	7.0



$u$	$p = 28.0$		$p = 28.2$		$p = 28.4$		$p = 28.6$		$p = 28.8$		$p = 29.0$		$u$		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
7.0	-14248 -9	-436	.9359944	-14513 -1	-441	.9340437	-14776 -2	-446	.9320486	-15043 -11	-451	.9300083	-15306 +18	-456	7.0
7.1	-12572 -41	-394	.9458442	-13132 -40	-399	.9441533	-13395 -23	-405	.9424219	-13655 -99	-410	.9406496	-13919 -17	-415	7.1
7.2	-11639 -63	-353	.9543808	-11791 -80	-358	.9529234	-12042 -51	-364	.9514297	-12296 -45	-369	.9498990	-12549 -46	-374	7.2
7.3	-10264 -72	-313	.9617383	-10500 -74	-319	.9604893	-10740 -69	-324	.9592079	-10989 -83	-329	.9578935	-11228 -61	-334	7.3
7.4	-9061 -88	-276	.9680458	-9283 -84	-281	.9669812	-9507 -84	-286	.9658879	-9733 -82	-291	.9647655	-9969 -79	-296	7.4
7.5	-7948 -90	-241	.9734250	-8150 -89	-246	.9725224	-8358 -88	-251	.9715946	-8568 -88	-256	.9706413	-8779 -87	-261	7.5
7.6	-6920 -92	-210	.9779892	-7107 -92	-214	.9772278	-7294 -92	-218	.9764447	-7487 -92	-223	.9756392	-7681 -92	-227	7.6
7.7	-5989 -95	-181	.9818427	-6155 -95	-185	.9812038	-6226 -95	-189	.9805461	-6500 -95	-193	.9798690	-6678 -95	-197	7.7
7.8	-5150 -91	-165	.9850807	-5300 -92	-158	.9845472	-5453 -93	-162	.9839975	-5698 -93	-166	.9834312	-5767 -93	-169	7.8
7.9	-4404 -67	-181	.9877887	-4337 -88	-135	.9873453	-4672 -89	-138	.9868881	-4909 -90	-141	.9864167	-4949 -91	-145	7.9
8.0	-3744 -81	-111	.9900430	-3859 -83	-114	.9896762	-3977 -84	-117	.9892978	-4100 -85	-120	.9889073	-4223 -86	-123	8.0
8.1	-3185 -76	-93	.9919114	-3268 -77	-96	.9916094	-3370 -78	-98	.9912975	-3474 -79	-101	.9909756	-3584 -80	-104	8.1
8.2	-2670 -70	-78	.9934532	-2750 -71	-87	.9932056	-2838 -73	-89	.9929498	-2931 -74	-85	.9926855	-3028 -75	-87	8.2
8.3	-2227 -64	-65	.9947200	-2301 -66	-80	.9945180	-2379 -66	-82	.9943090	-2456 -67	-81	.9940931	-2539 -69	-79	8.3
8.4	-1855 -57	-54	.9957567	-1919 -58	-68	.9955925	-1984 -59	-67	.9954226	-2051 -60	-68	.9952468	-2118 -61	-69	8.4
8.5	-1506 -49	-44	.9966015	-1589 -50	-45	.9964686	-1644 -51	-47	.9963311	-1708 -52	-48	.9961887	-1762 -53	-50	8.5
8.6	-1207 -45	-36	.9972874	-1313 -44	-37	.9971803	-1360 -45	-38	.9970693	-1406 -45	-39	.9969544	-1446 -47	-41	8.6
8.7	-1041 -38	-29	.9978420	-1078 -39	-30	.9977560	-1117 -40	-31	.9976669	-1158 -41	-32	.9975745	-1195 -42	-33	8.7
8.8	-880 -32	-24	.9982888	-883 -33	-25	.9982200	-914 -34	-26	.9981487	-947 -35	-26	.9980748	-983 -36	-27	8.8
8.9	-692 -27	-19	.9986474	-692 -28	-20	.9985926	-745 -29	-20	.9985358	-773 -30	-21	.9984768	-803 -30	-22	8.9
9.0	-581 -22	-15	.9989342	-582 -23	-16	.9988907	-604 -24	-16	.9988456	-627 -25	-17	.9987987	-650 -26	-18	9.0
9.1	-483 -19	-12	.9991628	-471 -20	-13	.9991284	-469 -21	-13	.9990927	-507 -21	-14	.9990556	-527 -22	-14	9.1
9.2	-364 -16	-10	.9993443	-378 -16	-10	.9993172	-393 -17	-11	.9992891	-409 -18	-11	.9992598	-424 -18	-11	9.2
9.3	-292 -13	-8	.9994880	-303 -14	-8	.9994667	-315 -14	-8	.9994446	-327 -15	-9	.9994216	-340 -16	-9	9.3
9.4	-233 -11	-8	.9996014	-243 -12	-6	.9995847	-262 -12	-7	.9995674	-262 -12	-7	.9995494	-272 -13	-7	9.4
9.5	-185 -9	-6	.9996905	-192 -9	-6	.9996775	-200 -10	-5	.9996640	-208 -10	-5	.9996500	-217 -11	-6	9.5
9.6	-147 -8	-4	.9997604	-153 -8	-4	.9997503	-159 -8	-4	.9997398	-166 -8	-4	.9997289	-175 -9	-4	9.6
9.7	-115 -7	-4	.9998150	-120 -7	-4	.9998072	-126 -7	-4	.9997990	-130 -7	-4	.9997906	-138 -8	-4	9.7
9.8	-92 -5	-4	.9998576	-98 -5	-4	.9998515	-95 -5	-4	.9998452	-103 -6	-4	.9998387	-107 -6	-4	9.8
9.9	-72 -4	-4	.9998906	-74 -4	-4	.9998860	-79 -4	-4	.9998811	-81 -5	-4	.9998761	-85 -5	-4	9.9
10.0	-55 -4	-4	.9999162	-58 -4	-4	.9999126	-59 -4	-4	.9999089	-63 -4	-4	.9999050	-65 -4	-4	10.0
10.1	-44 -4	-4	.9999360	-47 -4	-4	.9999333	-49 -4	-4	.9999304	-50 -4	-4	.9999274	-51 -4	-4	10.1
10.2	-34 -4	-4	.9999512	-36 -4	-4	.9999491	-36 -4	-4	.9999470	-39 -4	-4	.9999447	-41 -4	-4	10.2
10.3	-26 -4	-4	.9999629	-27 -4	-4	.9999613	-28 -4	-4	.9999597	-30 -4	-4	.9999579	-30 -4	-4	10.3
10.4	-20 -4	-4	.9999719	-22 -4	-4	.9999707	-23 -4	-4	.9999694	-22 -4	-4	.9999681	-24 -4	-4	10.4
10.5	-16 -4	-4	.9999787	-18 -4	-4	.9999778	-18 -4	-4	.9999769	-19 -4	-4	.9999759	-19 -4	-4	10.5
10.6	-12 -4	-4	.9999839	-12 -4	-4	.9999833	-14 -4	-4	.9999825	-13 -4	-4	.9999818	-14 -4	-4	10.6
10.7	-9 -4	-4	.9999879	-10 -4	-4	.9999874	-10 -4	-4	.9999868	-10 -4	-4	.9999863	-11 -4	-4	10.7
10.8	-7 -4	-4	.9999909	-7 -4	-4	.9999905	-7 -4	-4	.9999901	-8 -4	-4	.9999897	-8 -4	-4	10.8
10.9	-6 -4	-4	.9999932	-6 -4	-4	.9999929	-6 -4	-4	.9999926	-8 -4	-4	.9999923	-7 -4	-4	10.9
11.0	-5 -4	-4	.9999949	-5 -4	-4	.9999947	-5 -4	-4	.9999945	-3 -4	-4	.9999942	-6 -4	-4	11.0
11.1	-4 -4	-4	.9999962	-4 -4	-4	.9999960	-4 -4	-4	.9999959	-4 -4	-4	.9999957	-4 -4	-4	11.1
11.2	-4 -4	-4	.9999972	-4 -4	-4	.9999970	-4 -4	-4	.9999969	-4 -4	-4	.9999968	-4 -4	-4	11.2
11.3	-4 -4	-4	.9999979	-4 -4	-4	.9999978	-4 -4	-4	.9999977	-4 -4	-4	.9999976	-4 -4	-4	11.3
11.4	-4 -4	-4	.9999984	-4 -4	-4	.9999984	-4 -4	-4	.9999983	-4 -4	-4	.9999982	-4 -4	-4	11.4
11.5	-4 -4	-4	.9999988	-4 -4	-4	.9999988	-4 -4	-4	.9999987	-4 -4	-4	.9999987	-4 -4	-4	11.5
11.6	-4 -4	-4	.9999991	-4 -4	-4	.9999991	-4 -4	-4	.9999991	-4 -4	-4	.9999990	-4 -4	-4	11.6
11.7	-4 -4	-4	.9999994	-4 -4	-4	.9999993	-4 -4	-4	.9999993	-4 -4	-4	.9999993	-4 -4	-4	11.7
11.8	-4 -4	-4	.9999995	-4 -4	-4	.9999995	-4 -4	-4	.9999995	-4 -4	-4	.9999995	-4 -4	-4	11.8
11.9	-4 -4	-4	.9999997	-4 -4	-4	.9999996	-4 -4	-4	.9999996	-4 -4	-4	.9999996	-4 -4	-4	11.9
12.0	-4 -4	-4	.9999998	-4 -4	-4	.9999997	-4 -4	-4	.9999997	-4 -4	-4	.9999997	-4 -4	-4	12.0
12.1	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	.9999998	-4 -4	-4	12.1
12.2	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999998	-4 -4	-4	12.2
12.3	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	12.3
12.4	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	12.4
12.5	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	.9999999	-4 -4	-4	12.5
12.6	-4 -4	-4	1.0000000	-4 -4	-4	1.0000000	-4 -4	-4	1.0000000	-4 -4	-4	1.0000000	-4 -4	-4	12.6





u	p = 29.0			p = 29.2			p = 29.4			p = 29.6			p = 29.8			p = 30.0	
	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	u
7.5	.9696619	-8993 -87	-266	.9686560	-9211 -83	-270	.9676230	-9430 -83	-275	.9665626	-9654 -81	-280	.9654741	-9878 -76	-285	.9643571	7.5
7.6	.9748110	-7878 -91	-232	.9739596	-8673 -90	-236	.9730846	-8282 -89	-241	.9721854	-8488 -89	-246	.9712617	-8694 -88	-250	.9703130	7.6
7.7	.9791723	-6887 -94	-201	.9784554	-7939 -93	-205	.9777180	-7533 -94	-216	.9769596	-7410 -94	-214	.9761799	-7661 -93	-218	.9753783	7.7
7.8	.9828479	-6026 -95	-173	.9822474	-6991 -95	-177	.9816291	-6257 -95	-181	.9809928	-6428 -95	-185	.9803380	-6661 -95	-186	.9796643	7.8
7.9	.9859309	-5093 -91	-148	.9854303	-6239 -92	-181	.9849145	-5389 -93	-186	.9843832	-5640 -94	-189	.9838360	-5694 -94	-182	.9832726	7.9
8.0	.9885046	-4356 -87	-126	.9880893	-4460 -88	-129	.9876610	-4610 -89	-132	.9872196	-4746 -90	-136	.9867646	-4882 -91	-139	.9862958	8.0
8.1	.9906433	-3694 -91	-106	.9903003	-3966 -89	-109	.9899465	-3924 -84	-112	.9895814	-4046 -85	-114	.9892050	-4163 -85	-117	.9888167	8.1
8.2	.9924126	-3126 -95	-86	.9921307	-3219 -77	-99	.9918396	-3318 -78	-94	.9915392	-3423 -79	-97	.9912291	-3528 -80	-99	.9909091	8.2
8.3	.9938699	-2621 -95	-74	.9936392	-2705 -69	-77	.9934009	-2793 -71	-79	.9931547	-2881 -72	-81	.9929004	-2972 -75	-83	.9926379	8.3
8.4	.9950651	-2190 -92	-62	.9948772	-2293 -63	-84	.9946829	-2337 -64	-85	.9944821	-2414 -65	-87	.9942745	-2492 -67	-89	.9940601	8.4
8.5	.9960413	-1821 -85	-51	.9958899	-1683 -68	-83	.9957312	-1947 -67	-84	.9955681	-2012 -68	-86	.9953994	-2079 -68	-87	.9952250	8.5
8.6	.9968354	-1507 -89	-42	.9967123	-1534 -60	-49	.9965848	-1613 -61	-44	.9964529	-1668 -62	-46	.9963164	-1725 -60	-47	.9961752	8.6
8.7	.9974788	-1241 -89	-34	.9973798	-1286 -43	-36	.9972771	-1329 -43	-36	.9971709	-1377 -46	-36	.9970609	-1426 -47	-36	.9969470	8.7
8.8	.9979981	-1017 -95	-28	.9979187	-1053 -38	-29	.9978365	-1093 -39	-36	.9977512	-1130 -40	-31	.9976629	-1170 -41	-32	.9975715	8.8
8.9	.9984157	-831 -81	-22	.9983523	-862 -82	-23	.9982866	-892 -83	-24	.9982185	-925 -84	-25	.9981479	-959 -85	-26	.9980747	8.9
9.0	.9987502	-676 -87	-18	.9986997	-699 -28	-19	.9986475	-726 -28	-19	.9985933	-753 -29	-20	.9985370	-779 -30	-21	.9984788	9.0
9.1	.9990171	-545 -93	-16	.9989772	-565 -23	-15	.9989358	-589 -24	-16	.9988928	-619 -25	-16	.9988482	-634 -26	-17	.9988019	9.1
9.2	.9992295	-441 -95	-12	.9991979	-456 -20	-12	.9991652	-474 -21	-12	.9991313	-493 -21	-13	.9990960	-511 -22	-13	.9990594	9.2
9.3	.9993978	-354 -95	-9	.9993730	-376 -18	-10	.9993472	-381 -17	-10	.9993205	-398 -18	-10	.9992927	-411 -19	-10	.9992639	9.3
9.4	.9995307	-292 -94	-7	.9995113	-294 -14	-8	.9994911	-306 -14	-8	.9994701	-317 -15	-8	.9994483	-329 -16	-8	.9994257	9.4
9.5	.9996354	-226 -91	-6	.9996202	-234 -12	-6	.9996044	-243 -12	-8	.9995880	-253 -12	-6	.9995710	-263 -13	-7	.9995533	9.5
9.6	.9997175	-178 -9	-5	.9997057	-188 -10	-6	.9996934	-193 -10	-5	.9996806	-200 -10	-5	.9996674	-210 -10	-6	.9996536	9.6
9.7	.9997818	-142 -19	-4	.9997726	-147 -8	-4	.9997631	-154 -8	-4	.9997532	-161 -8	-4	.9997428	-164 -11	-4	.9997321	9.7
9.8	.9998319	-112 -6		.9998248	-116 -6		.9998174	-120 -6		.9998097	-124 -7		.9998018	-132 -7		.9997935	9.8
9.9	.9998708	-87 -5		.9998654	-92 -5		.9998597	-96 -5		.9998538	-100 -6		.9998476	-102 -6		.9998412	9.9
10.0	.9999010	-69 -4		.9998968	-71 -4		.9998924	-73 -4		.9998879	-77 -4		.9998832	-81 -4		.9998782	10.0
10.1	.9999243	-63		.9999211	-65		.9999178	-69		.9999143	-70		.9999107	-74		.9999069	10.1
10.2	.9999423	-41		.9999399	-44		.9999373	-45		.9999347	-48		.9999319	-49		.9999290	10.2
10.3	.9999562	-34		.9999543	-34		.9999523	-35		.9999503	-36		.9999482	-38		.9999460	10.3
10.4	.9999667	-24		.9999653	-25		.9999638	-27		.9999623	-28		.9999607	-29		.9999590	10.4
10.5	.9999748	-19		.9999738	-21		.9999726	-20		.9999715	-22		.9999703	-24		.9999690	10.5
10.6	.9999810	-16		.9999802	-15		.9999794	-17		.9999785	-17		.9999775	-16		.9999766	10.6
10.7	.9999857	-11		.9999851	-12		.9999845	-13		.9999838	-13		.9999831	-14		.9999824	10.7
10.8	.9999893	-10		.9999888	-9		.9999883	-10		.9999878	-10		.9999873	-10		.9999868	10.8
10.9	.9999919	-8		.9999916	-7		.9999912	-8		.9999909	-8		.9999905	-8		.9999901	10.9
11.0	.9999940	-6		.9999937	-6		.9999935	-7		.9999932	-8		.9999929	-6		.9999926	11.0
11.1	.9999955	-5		.9999953	-4		.9999951	-6		.9999949	-5		.9999947	-5		.9999945	11.1
11.2	.9999967	-4		.9999965	-4		.9999964	-4		.9999962	-4		.9999960	-4		.9999959	11.2
11.3	.9999975			.9999974			.9999973			.9999972			.9999971			.9999969	11.3
11.4	.9999982			.9999981			.9999980			.9999979			.9999978			.9999977	11.4
11.5	.9999986			.9999986			.9999985			.9999985			.9999984			.9999983	11.5
11.6	.9999990			.9999989			.9999989			.9999989			.9999988			.9999988	11.6
11.7	.9999993			.9999992			.9999992			.9999992			.9999991			.9999991	11.7
11.8	.9999995			.9999994			.9999994			.9999994			.9999994			.9999993	11.8
11.9	.9999996			.9999996			.9999996			.9999995			.9999995			.9999995	11.9
12.0	.9999997			.9999997			.9999997			.9999997			.9999997			.9999996	12.0
12.1	.9999998			.9999998			.9999998			.9999998			.9999998			.9999997	12.1
12.2	.9999998			.9999998			.9999998			.9999998			.9999998			.9999998	12.2
12.3	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	12.3
12.4	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	12.4
12.5	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	12.5
12.6	1.0000000			1.0000000			1.0000000			1.0000000			1.0000000			.9999999	12.6
12.7																1.0000000	12.7









$u$	$p = 31.0$			$p = 31.2$			$p = 31.4$			$p = 31.6$			$p = 31.8$			$p = 32.0$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$u$
7.5	.9583279	-11267 -51	-314	.9570298	-11505 -67	-319	.9556998	-11744 -64	-323	.9543374	-11984 -62	-328	.9529422	-12225 -61	-333	.9515138	7.5
7.6	.9651777	-8984 -79	-278	.9640690	-10217 -76	-288	.9629321	-10444 -73	-287	.9617664	-10673 -70	-292	.9605715	-10903 -67	-297	.9593469	7.6
7.7	.9710281	-8800 -87	-244	.9700865	-9009 -85	-249	.9691200	-9220 -83	-253	.9681281	-9432 -82	-258	.9671105	-9645 -82	-262	.9660667	7.7
7.8	.9759985	-7693 -82	-213	.9752031	-7885 -92	-217	.9743859	-8079 -84	-221	.9735466	-8277 -80	-226	.9726847	-8476 -89	-230	.9717998	7.8
7.9	.9801996	-6681 -95	-184	.9795312	-6856 -98	-188	.9788439	-7032 -94	-192	.9781374	-7211 -92	-196	.9774113	-7393 -93	-200	.9766652	7.9
8.0	.9837326	-5784 -94	-159	.9831737	-5919 -94	-162	.9825987	-6080 -93	-166	.9820071	-6242 -93	-169	.9813986	-6406 -95	-173	.9807728	8.0
8.1	.9866892	-4942 -91	-135	.9862243	-5081 -91	-138	.9857455	-5221 -93	-142	.9852526	-5368 -94	-145	.9847453	-5514 -94	-148	.9842231	8.1
8.2	.9891516	-4211 -87	-115	.9887668	-4334 -87	-118	.9883702	-4460 -86	-120	.9879615	-4587 -88	-123	.9875406	-4718 -89	-126	.9871070	8.2
8.3	.9911929	-3507 -81	-97	.9908759	-3676 -82	-99	.9905489	-3795 -84	-102	.9902117	-3897 -85	-104	.9898641	-4010 -86	-107	.9895059	8.3
8.4	.9928775	-3007 -74	-81	.9926174	-3098 -76	-83	.9923491	-3194 -77	-85	.9920722	-3291 -78	-87	.9917866	-3391 -79	-90	.9914920	8.4
8.5	.9942614	-2519 -68	-67	.9940491	-2599 -69	-69	.9938299	-2690 -70	-71	.9936036	-2785 -71	-73	.9933700	-2881 -73	-76	.9931289	8.5
8.6	.9953934	-2099 -60	-56	.9952209	-2168 -62	-57	.9950427	-2239 -63	-59	.9948585	-2310 -65	-61	.9946683	-2394 -66	-62	.9944718	8.6
8.7	.9963155	-1741 -54	-46	.9961759	-1799 -56	-47	.9960316	-1859 -57	-49	.9958824	-1920 -58	-50	.9957282	-1993 -59	-51	.9955688	8.7
8.8	.9970635	-1437 -47	-38	.9969510	-1486 -48	-39	.9968346	-1535 -49	-40	.9967143	-1598 -51	-41	.9965898	-1641 -52	-42	.9964611	8.8
8.9	.9976678	-1181 -43	-21	.9975775	-1221 -43	-32	.9974841	-1264 -44	-33	.9973874	-1307 -45	-34	.9972873	-1351 -46	-35	.9971838	8.9
9.0	.9981540	-964 -36	-25	.9980819	-999 -37	-26	.9980072	-1034 -39	-26	.9979298	-1070 -40	-27	.9978497	-1107 -41	-28	.9977668	9.0
9.1	.9985438	-786 -31	-20	.9984864	-814 -32	-21	.9984269	-843 -33	-21	.9983652	-872 -34	-22	.9983014	-904 -35	-23	.9982353	9.1
9.2	.9988551	-637 -26	-16	.9988095	-659 -26	-17	.9987623	-683 -27	-17	.9987134	-708 -29	-18	.9986627	-733 -29	-18	.9986102	9.2
9.3	.9991027	-513 -22	-13	.9990667	-532 -23	-13	.9990294	-551 -24	-14	.9989908	-573 -24	-14	.9989507	-594 -23	-15	.9989091	9.3
9.4	.9992990	-412 -18	-10	.9992707	-428 -20	-11	.9992414	-446 -20	-11	.9992109	-461 -19	-11	.9991793	-478 -20	-12	.9991465	9.4
9.5	.9994541	-331 -15	-8	.9994319	-343 -16	-8	.9994088	-354 -16	-8	.9993849	-368 -16	-9	.9993601	-382 -17	-9	.9993344	9.5
9.6	.9995761	-262 -13	-6	.9995588	-273 -13	-7	.9995408	-284 -13	-7	.9995221	-295 -14	-7	.9995027	-308 -14	-7	.9994826	9.6
9.7	.9996719	-209 -10	-5	.9996584	-217 -10	-5	.9996444	-226 -10	-5	.9996298	-234 -11	-6	.9996147	-243 -11	-6	.9995990	9.7
9.8	.9997468	-166 -8	-4	.9997363	-172 -8	-4	.9997254	-178 -9	-4	.9997141	-186 -9	-4	.9997024	-193 -9	-4	.9996902	9.8
9.9	.9998051	-129 -7		.9997970	-135 -7		.9997886	-141 -7		.9997799	-147 -7		.9997708	-152 -8	-4	.9997613	9.9
10.0	.9998505	-103 -6		.9998442	-105 -6		.9998377	-110 -6		.9998310	-115 -6		.9998240	-120 -7		.9998167	10.0
10.1	.9998856	-80 -5		.9998808	-84 -5		.9998758	-87 -5		.9998706	-90 -5		.9998652	-93 -5		.9998596	10.1
10.2	.9999127	-63 -4		.9999090	-65 -4		.9999052	-68 -4		.9999012	-70 -4		.9998971	-74 -4		.9998928	10.2
10.3	.9999335	-47 -4		.9999307	-50 -4		.9999278	-52 -4		.9999248	-55 -4		.9999216	-58 -4		.9999183	10.3
10.4	.9999496	-39		.9999474	-39		.9999452	-41		.9999429	-42		.9999405	-43		.9999380	10.4
10.5	.9999618	-28		.9999602	-31		.9999585	-31		.9999568	-34		.9999549	-34		.9999530	10.5
10.6	.9999712	-23		.9999699	-22		.9999687	-25		.9999673	-24		.9999659	-25		.9999645	10.6
10.7	.9999783	-17		.9999774	-18		.9999764	-18		.9999754	-20		.9999743	-20		.9999732	10.7
10.8	.9999837	-13		.9999830	-14		.9999823	-15		.9999815	-15		.9999807	-16		.9999799	10.8
10.9	.9999878	-10		.9999872	-11		.9999867	-11		.9999861	-11		.9999855	-12		.9999849	10.9
11.0	.9999909	-8		.9999905	-8		.9999900	-8		.9999896	-8		.9999892	-10		.9999887	11.0
11.1	.9999932	-7		.9999929	-7		.9999926	-7		.9999923	-6		.9999919	-8		.9999916	11.1
11.2	.9999949	-5		.9999947	-6		.9999945	-5		.9999942	-5		.9999940	-6		.9999937	11.2
11.3	.9999962	-4		.9999961	-4		.9999959	-4		.9999957	-4		.9999955	-5		.9999953	11.3
11.4	.9999972			.9999971			.9999970			.9999968			.9999967	-4		.9999965	11.4
11.5	.9999979			.9999978			.9999978			.9999977			.9999975			.9999974	11.5
11.6	.9999985			.9999984			.9999983			.9999983			.9999982			.9999981	11.6
11.7	.9999989			.9999988			.9999988			.9999987			.9999987			.9999986	11.7
11.8	.9999992			.9999991			.9999991			.9999991			.9999990			.9999990	11.8
11.9	.9999994			.9999994			.9999993			.9999993			.9999993			.9999992	11.9
12.0	.9999996			.9999995			.9999995			.9999995			.9999995			.9999994	12.0
12.1	.9999997			.9999997			.9999996			.9999996			.9999996			.9999996	12.1
12.2	.9999998			.9999997			.9999997			.9999997			.9999997			.9999997	12.2
12.3	.9999998			.9999998			.9999998			.9999998			.9999998			.9999998	12.3
12.4	.9999999			.9999999			.9999999			.9999998			.9999998			.9999998	12.4
12.5	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	12.5
12.6	.9999999			.9999999			.9999999			.9999999			.9999999			.9999999	12.6
12.7	1.0000000			1.0000000			.9999999			.9999999			.9999999			.9999999	12.7
12.8							1.0000000			1.0000000			.9999999			.9999999	12.8
12.9													1.0000000			.9999999	12.9
13.0																1.0000000	13.0

u	p = 32.0		p = 32.2		p = 32.4		p = 32.6		p = 32.8		p = 33.0		u					
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$			
7.5	-12470 -45	-338	.9500515	-12712 -42	-342	.9485550	-12957 -35	-347	.9470238	-13202 -33	-352	.9454575	-13447 -32	-358	.9438556	-13685 -31	-360	7.5
7.6	-11133 -64	-301	.9580922	-11387 -65	-306	.9568069	-11602 -60	-311	.9554905	-11838 -55	-315	.9541427	-12077 -60	-320	.9527628	-12316 -48	-324	7.6
7.7	-9867 -78	-287	.9649962	-10087 -77	-271	.9638986	-10309 -76	-276	.9627734	-10533 -74	-280	.9616202	-10757 -71	-285	.9604385	-10984 -72	-289	7.7
7.8	-8677 -91	-234	.9708915	-8881 -90	-238	.9699594	-9088 -87	-243	.9690030	-9290 -85	-247	.9680220	-9509 -83	-251	.9670158	-9722 -82	-256	7.8
7.9	-7575 -94	-204	.9758987	-7765 -88	-208	.9751114	-7954 -92	-212	.9743030	-8148 -92	-216	.9734729	-8341 -92	-220	.9726209	-8539 -91	-224	7.9
8.0	-6573 -95	-176	.9801294	-6744 -93	-180	.9794680	-6918 -95	-184	.9787882	-7090 -99	-187	.9780897	-7268 -95	-191	.9773721	-7448 -95	-195	8.0
8.1	-5664 -95	-151	.9836857	-5815 -94	-155	.9831330	-5972 -94	-158	.9825644	-6129 -96	-161	.9819797	-6290 -98	-165	.9813785	-6453 -98	-168	8.1
8.2	-4850 -92	-129	.9866605	-4985 -93	-132	.9862008	-5122 -94	-135	.9857277	-5264 -94	-138	.9852407	-5407 -95	-141	.9847396	-5552 -95	-144	8.2
8.3	-4128 -85	-109	.9891367	-4248 -83	-112	.9887564	-4370 -89	-115	.9883646	-4493 -90	-117	.9879610	-4619 -92	-120	.9875455	-4750 -93	-123	8.3
8.4	-3492 -81	-92	.9911883	-3598 -82	-94	.9908750	-3702 -83	-96	.9905522	-3813 -84	-99	.9902194	-3924 -86	-101	.9898764	-4035 -87	-104	8.4
8.5	-2940 -74	-77	.9928801	-3029 -78	-79	.9926234	-3123 -77	-81	.9923585	-3215 -78	-83	.9920854	-3312 -79	-85	.9918038	-3412 -80	-87	8.5
8.6	-2459 -67	-64	.9942690	-2537 -69	-66	.9940595	-2615 -70	-68	.9938433	-2697 -71	-69	.9936202	-2781 -72	-71	.9933900	-2866 -73	-73	8.6
8.7	-2047 -61	-53	.9954042	-2114 -62	-54	.9952341	-2182 -63	-56	.9950584	-2232 -64	-57	.9948769	-2321 -65	-59	.9946896	-2395 -67	-61	8.7
8.8	-1698 -53	-43	.9963280	-1750 -56	-43	.9961905	-1809 -58	-46	.9960483	-1867 -58	-47	.9959015	-1930 -58	-49	.9957497	-1991 -60	-50	8.8
8.9	-1397 -47	-36	.9970768	-1446 -48	-37	.9969660	-1492 -50	-38	.9968515	-1543 -51	-39	.9967331	-1593 -52	-40	.9966107	-1646 -53	-41	8.9
9.0	-1145 -42	-29	.9976810	-1184 -43	-30	.9975923	-1227 -44	-31	.9975004	-1268 -44	-32	.9974054	-1311 -46	-33	.9973071	-1355 -47	-34	9.0
9.1	-936 -38	-23	.9981668	-968 -37	-24	.9980959	-1001 -38	-25	.9980225	-1036 -38	-26	.9979466	-1073 -39	-26	.9978680	-1110 -40	-27	9.1
9.2	-780 -31	-19	.9985558	-785 -32	-19	.9984994	-816 -33	-20	.9984410	-844 -33	-21	.9983805	-873 -34	-21	.9983179	-903 -35	-22	9.2
9.3	-616 -25	-15	.9988660	-636 -26	-16	.9988213	-659 -27	-16	.9987751	-684 -28	-17	.9987271	-708 -29	-17	.9986775	-734 -29	-18	9.3
9.4	-495 -21	-12	.9991126	-515 -22	-13	.9990773	-533 -22	-13	.9990408	-552 -23	-13	.9990029	-572 -24	-14	.9989637	-593 -25	-14	9.4
9.5	-397 -18	-10	.9993077	-411 -19	-10	.9992800	-427 -19	-10	.9992513	-443 -20	-10	.9992215	-460 -20	-11	.9991906	-475 -21	-11	9.5
9.6	-318 -15	-8	.9994617	-330 -15	-8	.9994400	-342 -16	-8	.9994175	-355 -17	-8	.9993941	-367 -17	-9	.9993699	-382 -17	-9	9.6
9.7	-252 -12	-6	.9995827	-262 -12	-6	.9995658	-273 -13	-6	.9995482	-282 -14	-7	.9995300	-294 -14	-7	.9995110	-303 -15	-7	9.7
9.8	-201 -10	-5	.9996775	-208 -10	-5	.9996643	-215 -11	-5	.9996507	-226 -11	-5	.9996365	-233 -12	-5	.9996218	-243 -12	-6	9.8
9.9	-167 -8	-4	.9997515	-164 -8	-4	.9997413	-171 -9	-4	.9997307	-178 -9	-4	.9997197	-183 -10	-4	.9997083	-191 -10	-4	9.9
10.0	-125 -7		.9998091	-129 -7		.9998012	-134 -8		.9997931	-141 -8		.9997846	-146 -8		.9997757	-150 -9		10.0
10.1	-97 -5		.9998538	-102 -5		.9998477	-106 -5		.9998414	-109 -6		.9998349	-114 -7		.9998281	-119 -7		10.1
10.2	-77 -4		.9998883	-79 -4		.9998837	-83 -4		.9998788	-85 -5		.9998738	-89 -5		.9998686	-93 -5		10.2
10.3	-58 -4		.9999149	-61 -4		.9999114	-64 -4		.9999077	-67 -4		.9999038	-69 -4		.9998998	-71 -4		10.3
10.4	-47		.9999354	-49		.9999327	-50		.9999299	-52		.9999269	-54		.9999239	-57		10.4
10.5	-35		.9999510	-38		.9999490	-38		.9999469	-41		.9999446	-41		.9999423	-43		10.5
10.6	-28		.9999630	-29		.9999615	-31		.9999598	-30		.9999582	-33		.9999564	-34		10.6
10.7	-20		.9999721	-22		.9999709	-21		.9999697	-24		.9999685	-25		.9999671	-25		10.7
10.8	-16		.9999790	-16		.9999782	-18		.9999772	-18		.9999763	-18		.9999753	-20		10.8
10.9	-12		.9999843	-12		.9999836	-13		.9999829	-14		.9999822	-14		.9999815	-15		10.9
11.0	-9		.9999882	-9		.9999877	-11		.9999872	-10		.9999867	-11		.9999862	-12		11.0
11.1	-8		.9999912	-7		.9999909	-9		.9999905	-8		.9999901	-9		.9999897	-9		11.1
11.2	-8		.9999935	-8		.9999932	-7		.9999929	-6		.9999926	-8		.9999923	-6		11.2
11.3	-4		.9999951	-5		.9999949	-6		.9999947	-5		.9999945	-5		.9999943	-5		11.3
11.4			.9999964	-4		.9999962	-4		.9999961	-4		.9999959	-4		.9999958	-4		11.4
11.5			.9999973			.9999972			.9999971			.9999970			.9999969			11.5
11.6			.9999980			.9999979			.9999979			.9999978			.9999977			11.6
11.7			.9999985			.9999985			.9999984			.9999984			.9999983			11.7
11.8			.9999989			.9999989			.9999988			.9999988			.9999988			11.8
11.9			.9999992			.9999992			.9999991			.9999991			.9999991			11.9
12.0			.9999994			.9999994			.9999994			.9999994			.9999993			12.0
12.1			.9999996			.9999995			.9999995			.9999995			.9999995			12.1
12.2			.9999997			.9999997			.9999997			.9999997			.9999996			12.2
12.3			.9999998			.9999998			.9999997			.9999997			.9999997			12.3
12.4			.9999998			.9999998			.9999998			.9999998			.9999998			12.4
12.5			.9999999			.9999999			.9999999			.9999999			.9999999			12.5
12.6			.9999999			.9999999			.9999999			.9999999			.9999999			12.6
12.7			.9999999			.9999999			.9999999			.9999999			.9999999			12.7
12.8			.9999999			.9999999			.9999999			.9999999			.9999999			12.8
12.9			.9999999			.9999999			.9999999			.9999999			.9999999			12.9
13.0			1.0000000			1.0000000			1.0000000			1.0000000			1.0000000			13.0

5.73  
5.24  
4.9

5.48

Table with columns for p values (33.0, 33.2, 33.4, 33.6, 33.8, 34.0) and rows for u values (1.8 to 7.5). Each cell contains values for I(u, p) and its derivatives (delta\_m^2, delta\_p^2, delta\_m^4, delta\_p^4).

u	p = 34.0		p = 34.2		p = 34.4		p = 34.6		p = 34.8		p = 35.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
1.8													1.8		
1.9			·0000000			·0000000			·0000000			·0000000			1.9
2.0	0		·0000000	0		·0000000	0		·0000000	0		·0000000	0		2.0
2.1	+2		·0000001	+1		·0000001	+1		·0000001	+1		·0000001	+1		2.1
2.2	+4		·0000003	+3		·0000003	+3		·0000002	+2		·0000002	+2		2.2
2.3	+8		·0000008	+7		·0000007	+6		·0000006	+5		·0000005	+4		2.3
2.4	+17		·0000020	+16		·0000018	+14		·0000016	+13		·0000014	+11		2.4
2.5	+37		·0000048	+33		·0000043	+29		·0000038	+27		·0000034	+23		2.5
2.6	+70		·0000109	+64		·0000097	+58		·0000087	+52		·0000077	+42		2.6
2.7	+131		·0000234	+119		·0000210	+105		·0000188	+90		·0000169	+71		2.7
2.8	+231	+5	·0000478	+232	+5	·0000431	+196	+4	·0000389	+159	+4	·0000351	+114	+4	2.8
2.9	+392	+9	·0000934	+363	+9	·0000848	+333	+6	·0000769	+308	+7	·0000697	+294	+6	2.9
3.0	+639	+16	·0001753	+692	+14	·0001598	+661	+13	·0001457	+611	+12	·0001327	+474	+11	3.0
3.1	+1004	+25	·0003164	+937	+23	·0002899	+874	+21	·0002656	+613	+20	·0002431	+756	+18	3.1
3.2	+1619	+38	·0005512	+1425	+36	·0005074	+1334	+33	·0004668	+1251	+31	·0004293	+1171	+28	3.2
3.3	+2227	+58	·0009285	+2098	+54	·0008583	+1976	+50	·0007931	+1859	+47	·0007326	+1748	+44	3.3
3.4	+3169	+83	·0015156	+2990	+78	·0014068	+2820	+73	·0013053	+2674	+69	·0012107	+2527	+64	3.4
3.5	+4351	+117	·0024017	+4136	+110	·0022381	+3930	+104	·0020849	+3732	+98	·0019415	+3542	+92	3.5
3.6	+5823	+160	·0037014	+5558	+161	·0034624	+5393	+143	·0032377	+5057	+135	·0030265	+4820	+128	3.6
3.7	+7599	+213	·0055569	+7263	+201	·0052170	+6982	+191	·0048962	+6667	+192	·0045935	+6382	+172	3.7
3.8	+9612	+273	·0081392	+9249	+261	·0076678	+8990	+249	·0072214	+8557	+237	·0067987	+8222	+226	3.8
3.9	+11881	+343	·0116464	+11483	+329	·0110086	+11089	+315	·0104023	+10794	+302	·0098261	+10323	+289	3.9
4.0	+14333	+421	·0163019	+13903	+405	·0154583	+13480	+389	·0146536	+13063	+374	·0138863	+12553	+369	4.0
4.1	+16882	+504	·0223477	+16440	+496	·0212560	+16091	+470	·0202112	+15565	+453	·0192118	+15133	+437	4.1
4.2	+19457	+589	·0300375	+18991	+671	·0286538	+18563	+653	·0273254	+18116	+536	·0260505	+17681	+616	4.2
4.3	+21853	+673	·0396264	+21442	+855	·0379069	+21077	+837	·0362511	+20610	+619	·0346573	+20187	+603	4.3
4.4	+24034	+752	·0513595	+23671	+1035	·0492628	+23930	+1017	·0472378	+22922	+700	·0452828	+22357	+683	4.4
4.5	+26841	+823	·0654597	+25550	+1207	·0629487	+26245	+1190	·0605167	+24929	+773	·0581620	+24903	+757	4.5
4.6	+27105	+880	·0821149	+26991	+1380	·0791591	+29744	+1361	·0762885	+26510	+836	·0735015	+28253	+821	4.6
4.7	+27988	+921	·1014662	+27993	+1510	·0980439	+27885	+1496	·0947113	+27355	+895	·0914673	+27403	+872	4.7
4.8	+27973	+943	·1235978	+27994	+1634	·1196974	+27990	+1626	·1158896	+27975	+916	·1121734	+27933	+906	4.8
4.9	+27841	+943	·1485288	+27438	+1699	·1441505	+27211	+1693	·1398654	+27716	+927	·1356731	+27796	+921	4.9
5.0	+25992	+921	·1762086	+26292	+1920	·1713647	+26511	+1919	·1666127	+26737	+917	·1619524	+26941	+914	5.0
5.1	+23931	+877	·2065146	+24940	+1880	·2012300	+24708	+1863	·1960337	+25505	+895	·1909258	+25331	+886	5.1
5.2	+21270	+812	·2392546	+21768	+1619	·2335661	+22246	+1626	·2279602	+23141	+831	·2224373	+23141	+833	5.2
5.3	+18040	+728	·2741714	+18626	+1386	·2681267	+19198	+1285	·2621569	+19753	+757	·2562629	+20293	+766	5.3
5.4	+14306	+627	·3109508	+15924	+1041	·3046071	+16689	+964	·2983289	+16390	+667	·2921174	+16917	+679	5.4
5.5	+10873	+515	·3492326	+11079	+681	·3426544	+11775	+647	·3361309	+12462	+592	·3296636	+13140	+577	5.5
5.6	+6199	+394	·3886223	+6927	+412	·3818792	+7053	+430	·3751791	+8373	+447	·3685238	+9965	+464	5.6
5.7	+1978	+289	·4287047	+2797	+288	·4218693	+3484	+307	·4150646	+4102	+326	·4082925	+4388	+345	5.7
5.8	-2161	+144	·4690578	-1454	+164	·4622028	-43	+184	·4553663	-21	+203	·4485500	-628	+222	5.8
5.9	-5093	+23	·5092655	-6430	+42	·5024621	-1759	+62	·4956649	-4982	+82	·4888758	-3398	+101	5.9
6.0	-8722	-91	·5489302	-9115	-78	·5422455	-8502	-53	·5355553	-7877	-34	·5288618	-7248	-16	6.0
6.1	-12957	-196	·5876834	-12427	-176	·5811787	-11833	-160	·5746580	-11329	-142	·5681230	-10799	-124	6.1
6.2	-16745	-287	·6251939	-16294	-271	·6189236	-14831	-255	·6126278	-14364	-238	·6063082	-13857	-223	6.2
6.3	-20339	-365	·6611750	-20339	-361	·6551854	-17391	-337	·6491622	-16911	-322	·6431067	-16506	-308	6.3
6.4	-23930	-429	·6953883	-23930	-417	·6897171	-19269	-405	·6840055	-18967	-392	·6782546	-18650	-379	6.4
6.5	-27523	-476	·7276459	-27523	-468	·7223219	-20727	-456	·7169521	-20513	-448	·7115375	-20284	-437	6.5
6.6	-31117	-513	·7578109	-31117	-504	·7528540	-21693	-496	·7478474	-21562	-489	·7427920	-21419	-480	6.6
6.7	-34710	-538	·7857949	-34710	-527	·7812168	-22319	-522	·7765865	-22141	-516	·7719046	-22075	-509	6.7
6.8	-38303	-541	·8115558	-38303	-538	·8073604	-22929	-534	·8031115	-22929	-530	·7988097	-22929	-526	6.8
6.9	-41896	-538	·8350929	-41896	-537	·8312771	-23676	-535	·8274079	-23949	-533	·8234854	-24118	-530	6.9
7.0	-45489	-526	·8564420	-45489	-526	·8529970	-24351	-526	·8494994	-24390	-525	·8459493	-24390	-524	7.0
7.1	-49082	-506	·8756699	-49082	-506	·8725818	-24949	-509	·8694429	-24949	-509	·8662530	-24949	-510	7.1
7.2	-52675	-481	·8928686	-52675	-483	·8901197	-25547	-465	·8873222	-25547	-467	·8844760	-25547	-489	7.2
7.3	-56268	-450	·9081498	-56268	-453	·9057192	-26145	-455	·9032429	-26145	-459	·9007208	-26145	-463	7.3
7.4	-59861	-417	·9216391	-59861	-421	·9195041	-26743	-424	·9173267	-26743	-428	·9151065	-26743	-431	7.4
7.5	-63454	-382	·9334716	-63454	-386	·9316082	-27341	-390	·9297058	-27341	-394	·9277640	-27341	-395	7.5





$u$	$p = 34.0$		$p = 34.2$		$p = 34.4$		$p = 34.6$		$p = 34.8$		$p = 35.0$		$u$		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
7.5	-14926 +5	-382	.9334716	-16172 +18	-386	.9316082	-16416 +18	-390	.9297058	-16559 +22	-394	.9277640	-16909 +24	-398	7.5
7.6	-13521	-346	.9437869	-13763	-351	.9421707	-14006	-355	.9405190	-14249	-359	.9388315	-14484	-363	7.6
7.7	-12142	-311	.9527259	-12379	-316	.9513326	-12615	-320	.9499073	-12853	-324	.9484496	-13089	-328	7.7
7.8	-10818	-277	.9604270	-11041	-281	.9592330	-11268	-286	.9580103	-11494	-290	.9567588	-11724	-294	7.8
7.9	-9569	-244	.9670240	-9770	-249	.9660066	-9983	-253	.9649639	-10195	-257	.9638956	-10415	-261	7.9
8.0	-8387	-214	.9726440	-8584	-218	.9717819	-8779	-222	.9708977	-8980	-226	.9699909	-9181	-230	8.0
8.1	-7306	-186	.9774056	-7492	-193	.9766793	-7686	-198	.9759335	-7847	-201	.9751681	-8032	-201	8.1
8.2	-6329	-160	.9814190	-6488	-164	.9808101	-6644	-167	.9801846	-6811	-170	.9795421	-6981	-174	8.2
8.3	-5432	-137	.9847841	-5575	-140	.9842765	-5723	-143	.9837546	-5875	-146	.9832180	-6023	-149	8.3
8.4	-4639	-117	.9875917	-4767	-119	.9871706	-4897	-122	.9867373	-5029	-125	.9862916	-5165	-128	8.4
8.5	-3998	-99	.9899226	-4050	-101	.9895750	-4164	-103	.9892171	-4298	-106	.9888487	-4400	-108	8.5
8.6	-3322	-83	.9918485	-3421	-85	.9915630	-3520	-87	.9912689	-3624	-89	.9909658	-3727	-91	8.6
8.7	-2789	-69	.9934323	-2873	-71	.9931990	-2960	-73	.9929583	-3046	-75	.9927102	-3136	-77	8.7
8.8	-2328	-57	.9947289	-2399	-59	.9945390	-2473	-60	.9943431	-2546	-62	.9941410	-2627	-64	8.8
8.9	-1932	-47	.9957856	-1992	-49	.9956318	-2055	-50	.9954731	-2121	-51	.9953091	-2186	-53	8.9
9.0	-1594	-39	.9966431	-1647	-40	.9965191	-1701	-41	.9963910	-1755	-42	.9962586	-1810	-43	9.0
9.1	-1310	-32	.9973359	-1353	-33	.9972363	-1397	-34	.9971334	-1444	-35	.9970271	-1493	-36	9.1
9.2	-1071	-26	.9978934	-1105	-26	.9978138	-1146	-27	.9977314	-1183	-28	.9976463	-1223	-29	9.2
9.3	-872	-21	.9983401	-902	-21	.9982767	-932	-22	.9982111	-965	-23	.9981433	-998	-23	9.3
9.4	-705	-17	.9986966	-739	-17	.9986464	-757	-18	.9985943	-782	-18	.9985405	-810	-19	9.4
9.5	-570	-13	.9989801	-591	-14	.9989404	-611	-14	.9988993	-633	-15	.9988567	-654	-15	9.5
9.6	-458	-10	.9992045	-472	-11	.9991733	-490	-11	.9991410	-508	-12	.9991075	-527	-12	9.6
9.7	-364	-8	.9993817	-389	-9	.9993572	-398	-9	.9993319	-408	-9	.9993056	-422	-10	9.7
9.8	-291	-7	.9995209	-301	-7	.9995018	-313	-7	.9994820	-324	-7	.9994615	-337	-8	9.8
9.9	-231	-5	.9996300	-240	-5	.9996151	-248	-6	.9995997	-257	-6	.9995837	-266	-6	9.9
10.0	-182	-4	.9997151	-189	-4	.9997036	-196	-4	.9996917	-205	-5	.9996793	-213	-5	10.0
10.1	-143	-3	.9997813	-148	-3	.9997725	-156	-3	.9997632	-160	-4	.9997536	-165	-4	10.1
10.2	-113	-7	.9998327	-118	-7	.9998258	-120	-7	.9998187	-128	-7	.9998114	-132	-7	10.2
10.3	-87	-6	.9998723	-89	-6	.9998671	-95	-6	.9998616	-98	-6	.9998560	-102	-6	10.3
10.4	-63	-4	.9999029	-67	-4	.9998989	-74	-4	.9998947	-77	-6	.9998904	-80	-6	10.4
10.5	-45	-4	.9999263	-49	-4	.9999233	-57	-4	.9999201	-59	-4	.9999168	-62	-4	10.5
10.6	-32	-3	.9999443	-35	-3	.9999420	-45	-3	.9999396	-47	-3	.9999370	-47	-3	10.6
10.7	-25	-3	.9999580	-28	-3	.9999562	-33	-3	.9999544	-35	-3	.9999525	-38	-3	10.7
10.8	-19	-2	.9999684	-22	-2	.9999671	-27	-2	.9999657	-28	-2	.9999642	-27	-2	10.8
10.9	-14	-1	.9999763	-17	-1	.9999753	-20	-1	.9999742	-20	-1	.9999732	-23	-1	10.9
11.0	-11	-1	.9999823	-13	-1	.9999815	-16	-1	.9999807	-16	-1	.9999799	-16	-1	11.0
11.1	-9	-1	.9999868	-11	-1	.9999862	-12	-1	.9999856	-12	-1	.9999850	-13	-1	11.1
11.2	-7	-1	.9999902	-9	-1	.9999897	-9	-1	.9999893	-9	-1	.9999888	-9	-1	11.2
11.3	-5	-1	.9999927	-7	-1	.9999924	-6	-1	.9999921	-7	-1	.9999917	-7	-1	11.3
11.4	-4	-1	.9999946	-5	-1	.9999944	-5	-1	.9999941	-5	-1	.9999939	-6	-1	11.4
11.5	-3	-1	.9999960	-4	-1	.9999958	-4	-1	.9999956	-4	-1	.9999955	-4	-1	11.5
11.6	-2	-1	.9999971	-3	-1	.9999969	-3	-1	.9999968	-3	-1	.9999967	-3	-1	11.6
11.7	-1	-1	.9999978	-2	-1	.9999978	-2	-1	.9999977	-2	-1	.9999975	-2	-1	11.7
11.8	-1	-1	.9999984	-1	-1	.9999984	-1	-1	.9999983	-1	-1	.9999982	-1	-1	11.8
11.9	-1	-1	.9999989	-1	-1	.9999988	-1	-1	.9999987	-1	-1	.9999987	-1	-1	11.9
12.0	-1	-1	.9999992	-1	-1	.9999991	-1	-1	.9999991	-1	-1	.9999990	-1	-1	12.0
12.1	-1	-1	.9999994	-1	-1	.9999994	-1	-1	.9999993	-1	-1	.9999993	-1	-1	12.1
12.2	-1	-1	.9999996	-1	-1	.9999995	-1	-1	.9999995	-1	-1	.9999995	-1	-1	12.2
12.3	-1	-1	.9999997	-1	-1	.9999997	-1	-1	.9999997	-1	-1	.9999996	-1	-1	12.3
12.4	-1	-1	.9999998	-1	-1	.9999998	-1	-1	.9999997	-1	-1	.9999997	-1	-1	12.4
12.5	-1	-1	.9999999	-1	-1	.9999998	-1	-1	.9999998	-1	-1	.9999998	-1	-1	12.5
12.6	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999998	-1	-1	12.6
12.7	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	12.7
12.8	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	12.8
12.9	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	12.9



u	p = 36.0		p = 36.2		p = 36.4		p = 36.6		p = 36.8		p = 37.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
1.9													1.9		
2.0			0.000000			0.000000			0.000000			0.000000			2.0
2.1	0		0.000000	0		0.000000	0		0.000000	0		0.000000	0		2.1
2.2	+1		0.000001	+1		0.000001	+1		0.000001	+1		0.000000	+1		2.2
2.3	+3		0.000002	+3		0.000002	+3		0.000002	+3		0.000001	+3		2.3
2.4	+6		0.000006	+6		0.000005	+6		0.000004	+6		0.000003	+6		2.4
2.5	+13		0.000014	+13		0.000013	+13		0.000011	+13		0.000010	+13		2.5
2.6	+25		0.000034	+25		0.000031	+25		0.000027	+25		0.000024	+25		2.6
2.7	+52		0.000078	+52		0.000070	+52		0.000062	+52		0.000056	+52		2.7
2.8	+115		0.000169	+115		0.000152	+115		0.000136	+115		0.000122	+115		2.8
2.9	+249	+4	0.000347	+249	+4	0.000314	+249	+4	0.000284	+249	+4	0.000256	+249	+4	2.9
3.0	+533	+7	0.000685	+533	+7	0.000622	+533	+7	0.000565	+533	+7	0.000513	+533	+7	3.0
3.1	+1129	+11	0.001297	+1129	+11	0.001184	+1129	+11	0.001080	+1129	+11	0.000985	+1129	+11	3.1
3.2	+2429	+18	0.002365	+2429	+18	0.002168	+2429	+18	0.001988	+2429	+18	0.001821	+2429	+18	3.2
3.3	+5139	+29	0.004161	+5139	+29	0.003832	+5139	+29	0.003528	+5139	+29	0.003247	+5139	+29	3.3
3.4	+11049	+43	0.007080	+11049	+43	0.006548	+11049	+43	0.006035	+11049	+43	0.005596	+11049	+43	3.4
3.5	+23553	+64	0.011676	+23553	+64	0.010842	+23553	+64	0.010065	+23553	+64	0.009340	+23553	+64	3.5
3.6	+50077	+91	0.018694	+50077	+91	0.017427	+50077	+91	0.016241	+50077	+91	0.015130	+50077	+91	3.6
3.7	+106863	+125	0.029111	+106863	+125	0.027238	+106863	+125	0.025478	+106863	+125	0.023823	+106863	+125	3.7
3.8	+228179	+168	0.044159	+228179	+168	0.041464	+228179	+168	0.038921	+228179	+168	0.036523	+228179	+168	3.8
3.9	+482429	+220	0.065344	+482429	+220	0.061565	+482429	+220	0.057987	+482429	+220	0.054598	+482429	+220	3.9
4.0	+1033920	+280	0.094454	+1033920	+280	0.089282	+1033920	+280	0.084366	+1033920	+280	0.079696	+1033920	+280	4.0
4.1	+2206440	+348	0.133537	+2206440	+348	0.126619	+2206440	+348	0.120022	+2206440	+348	0.113734	+2206440	+348	4.1
4.2	+4718104	+422	0.184869	+4718104	+422	0.175816	+4718104	+422	0.167156	+4718104	+422	0.158875	+4718104	+422	4.2
4.3	+10006350	+500	0.250887	+10006350	+500	0.239287	+10006350	+500	0.228152	+10006350	+500	0.217478	+10006350	+500	4.3
4.4	+21212320	+580	0.331515	+21212320	+580	0.319544	+21212320	+580	0.308520	+21212320	+580	0.292028	+21212320	+580	4.4
4.5	+44824580	+667	0.437053	+44824580	+667	0.419096	+44824580	+667	0.401764	+44824580	+667	0.385041	+44824580	+667	4.5
4.6	+95424514	+729	0.562068	+95424514	+729	0.540338	+95424514	+729	0.519307	+95424514	+729	0.498957	+95424514	+729	4.6
4.7	+203166606	+791	0.711266	+203166606	+791	0.685427	+203166606	+791	0.660349	+203166606	+791	0.636019	+203166606	+791	4.7
4.8	+437231060	+840	0.886376	+437231060	+840	0.856158	+437231060	+840	0.826754	+437231060	+840	0.798153	+437231060	+840	4.8
4.9	+932784965	+872	1.088631	+932784965	+872	1.053854	+932784965	+872	1.019929	+932784965	+872	0.986847	+932784965	+872	4.9
5.0	+200772170	+886	1.318676	+200772170	+886	1.279263	+200772170	+886	1.240722	+200772170	+886	1.203047	+200772170	+886	5.0
5.1	+432668470	+850	1.576497	+432668470	+850	1.532485	+432668470	+850	1.489347	+432668470	+850	1.447077	+432668470	+850	5.1
5.2	+925234761	+881	1.861381	+925234761	+881	1.812927	+925234761	+881	1.765326	+925234761	+881	1.718577	+925234761	+881	5.2
5.3	+198231229	+805	2.171906	+198231229	+805	2.119285	+198231229	+805	2.067476	+198231229	+805	2.016483	+198231229	+805	5.3
5.4	+430203920	+738	2.505969	+430203920	+738	2.449568	+430203920	+738	2.393920	+430203920	+738	2.339031	+430203920	+738	5.4
5.5	+924169840	+664	2.860840	+924169840	+664	2.801150	+924169840	+664	2.742135	+924169840	+664	2.683804	+924169840	+664	5.5
5.6	+1981219060	+566	3.233255	+1981219060	+566	3.170850	+1981219060	+566	3.109027	+1981219060	+566	3.047799	+1981219060	+566	5.6
5.7	+430915960	+447	3.619517	+430915960	+447	3.555039	+430915960	+447	3.491038	+430915960	+447	3.427530	+430915960	+447	5.7
5.8	+934971160	+332	4.015629	+934971160	+332	3.949761	+934971160	+332	3.884258	+934971160	+332	3.819138	+934971160	+332	5.8
5.9	+203773214	+214	4.417421	+203773214	+214	4.350868	+203773214	+214	4.284565	+203773214	+214	4.218529	+203773214	+214	5.9
6.0	+448808197	+97	4.820689	+448808197	+97	4.754155	+448808197	+97	4.687754	+448808197	+97	4.621504	+448808197	+97	6.0
6.1	+987160916	-16	5.221324	+987160916	-16	5.155488	+987160916	-16	5.089672	+987160916	-16	5.023894	+987160916	-16	6.1
6.2	+216068412	-121	5.615428	+216068412	-121	5.550927	+216068412	-121	5.486339	+216068412	-121	5.421682	+216068412	-121	6.2
6.3	+478138009	-216	5.999417	+478138009	-216	5.936828	+478138009	-216	5.874055	+478138009	-216	5.811115	+478138009	-216	6.3
6.4	+105164540	-299	6.370101	+105164540	-299	6.309931	+105164540	-299	6.249491	+105164540	-299	6.188796	+105164540	-299	6.4
6.5	+232186120	-368	6.724744	+232186120	-368	6.667420	+232186120	-368	6.609752	+232186120	-368	6.551754	+232186120	-368	6.5
6.6	+509202940	-424	7.061102	+509202940	-424	7.006965	+509202940	-424	6.952425	+509202940	-424	6.897493	+509202940	-424	6.6
6.7	+112214110	-466	7.377439	+112214110	-466	7.326744	+112214110	-466	7.275600	+112214110	-466	7.224016	+112214110	-466	6.7
6.8	+247220983	-496	7.672521	+247220983	-496	7.625440	+247220983	-496	7.577876	+247220983	-496	7.529838	+247220983	-496	6.8
6.9	+544223110	-510	7.945600	+544223110	-510	7.902223	+544223110	-510	7.858344	+544223110	-510	7.813968	+544223110	-510	6.9
7.0	+12022145	-515	8.196374	+12022145	-515	8.156719	+12022145	-515	8.116554	+12022145	-515	8.075883	+12022145	-515	7.0
7.1	+26321637	-509	8.424946	+26321637	-509	8.388966	+26321637	-509	8.352480	+26321637	-509	8.315487	+26321637	-509	7.1
7.2	+56923845	-495	8.631770	+56923845	-495	8.599364	+56923845	-495	8.566463	+56923845	-495	8.533066	+56923845	-495	7.2
7.3	+12419924	-475	8.817595	+12419924	-475	8.788617	+12419924	-475	8.759160	+12419924	-475	8.729225	+12419924	-475	7.3
7.4	+27318639	-449	8.983408	+27318639	-449	8.957673	+27318639	-449	8.931485	+27318639	-449	8.904842	+27318639	-449	7.4
7.5	+59217321	-419	9.130375	+59217321	-419	9.107676	+59217321	-419	9.084551	+59217321	-419	9.060999	+59217321	-419	7.5













$u$	$p = 38.0$		$p = 38.2$		$p = 38.4$		$p = 38.6$		$p = 38.8$		$p = 39.0$		$u$		
	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$	$\delta_u^2$	$\delta_p^2$	$I(u, p)$		$\delta_u^2$	$\delta_p^2$
	$\delta_u^4$	$\delta_p^4$		$\delta_u^4$	$\delta_p^4$		$\delta_u^4$	$\delta_p^4$		$\delta_u^4$	$\delta_p^4$			$\delta_u^4$	$\delta_p^4$
8.0	-12650	-298	.9507390	-12878	-298	.9493584	-19105	-900	.9479479	-19935	-904	.9465069	-13668	-308	8.0
8.1	-11269	-261	.9587819	-11607	-285	.9575979	-11727	-269	.9563871	-11948	-272	.9551490	-12170	-276	8.1
8.2	-9994	-231	.9656741	-10200	-235	.9646647	-10408	-239	.9636315	-10617	-242	.9625741	-10827	-240	8.2
8.3	-8779	-202	.9715463	-8871	-208	.9706907	-9163	-209	.9698142	-9358	-212	.9689165	-9557	-210	8.3
8.4	-7654	-176	.9765214	-7829	-179	.9758004	-8099	-183	.9750611	-8189	-166	.9743032	-8370	-189	8.4
8.5	-6598	-163	.9807136	-6788	-156	.9801092	-6947	-158	.9794891	-7111	-161	.9788529	-7278	-164	8.5
8.6	-5698	-139	.9842270	-5840	-139	.9837233	-6957	-136	.9832060	-6135	-139	.9826748	-6284	-141	8.6
8.7	-4888	-111	.9871564	-4965	-113	.9867387	-6123	-116	.9863094	-6254	-116	.9858683	-6388	-121	8.7
8.8	-4132	-94	.9895863	-4243	-96	.9892418	-4358	-98	.9888874	-4473	-100	.9885230	-4591	-102	8.8
8.9	-3485	-79	.9915919	-3683	-81	.9913091	-3682	-83	.9910181	-3784	-84	.9907186	-3887	-87	8.9
9.0	-2923	-66	.9932392	-3007	-67	.9930082	-3092	-69	.9927704	-3181	-71	.9925255	-3271	-72	9.0
9.1	-2438	-54	.9945858	-2510	-56	.9943981	-2584	-57	.9942046	-2688	-59	.9940053	-2735	-59	9.1
9.2	-2020	-45	.9956814	-2062	-46	.9955296	-2145	-47	.9953730	-2210	-49	.9952116	-2276	-50	9.2
9.3	-1668	-37	.9965688	-1718	-38	.9964466	-1772	-39	.9963204	-1826	-40	.9961903	-1882	-41	9.3
9.4	-1366	-30	.9972844	-1412	-31	.9971864	-1456	-32	.9970852	-1501	-33	.9969808	-1548	-34	9.4
9.5	-1117	-24	.9978588	-1152	-25	.9977806	-1189	-26	.9976999	-1229	-26	.9976165	-1268	-27	9.5
9.6	-906	-20	.9983180	-936	-20	.9982559	-968	-21	.9981917	-999	-22	.9981254	-1032	-22	9.6
9.7	-735	-16	.9986836	-755	-16	.9986344	-782	-17	.9985836	-809	-17	.9985311	-836	-18	9.7
9.8	-609	-13	.9989734	-610	-13	.9989347	-632	-13	.9988946	-652	-14	.9988532	-674	-14	9.8
9.9	-471	-10	.9992022	-488	-10	.9991718	-504	-10	.9991404	-523	-11	.9991079	-542	-11	9.9
10.0	-378	-8	.9993822	-390	-8	.9993585	-405	-8	.9993339	-418	-9	.9993084	-431	-9	10.0
10.1	-298	-6	.9995232	-310	-6	.9995047	-320	-7	.9994856	-332	-7	.9994658	-345	-7	10.1
10.2	-237	-5	.9996332	-244	-5	.9996189	-253	-5	.9996041	-263	-6	.9995887	-272	-6	10.2
10.3	-185	-4	.9997188	-193	-4	.9997078	-201	-4	.9996963	-207	-4	.9996844	-214	-4	10.3
10.4	-147	-3	.9997851	-151	-3	.9997766	-156	-3	.9997678	-163	-3	.9997587	-170	-3	10.4
10.5	-113	-2	.9998363	-118	-2	.9998298	-123	-2	.9998230	-126	-2	.9998160	-131	-2	10.5
10.6	-88	-1	.9998757	-82	-1	.9998707	-85	-1	.9998656	-88	-1	.9998602	-91	-1	10.6
10.7	-69	-1	.9999059	-63	-1	.9999021	-67	-1	.9998982	-71	-1	.9998941	-74	-1	10.7
10.8	-53	-1	.9999290	-55	-1	.9999261	-57	-1	.9999231	-59	-1	.9999200	-61	-1	10.8
10.9	-41	-1	.9999466	-43	-1	.9999444	-44	-1	.9999421	-45	-1	.9999398	-46	-1	10.9
11.0	-31	-1	.9999599	-32	-1	.9999583	-34	-1	.9999566	-36	-1	.9999548	-36	-1	11.0
11.1	-24	-1	.9999700	-26	-1	.9999688	-26	-1	.9999675	-26	-1	.9999662	-28	-1	11.1
11.2	-18	-1	.9999776	-18	-1	.9999767	-19	-1	.9999758	-21	-1	.9999748	-22	-1	11.2
11.3	-13	-1	.9999834	-16	-1	.9999827	-16	-1	.9999820	-16	-1	.9999812	-15	-1	11.3
11.4	-11	-1	.9999877	-11	-1	.9999871	-11	-1	.9999866	-11	-1	.9999861	-13	-1	11.4
11.5	-8	-1	.9999909	-8	-1	.9999905	-8	-1	.9999901	-9	-1	.9999897	-9	-1	11.5
11.6	-6	-1	.9999933	-6	-1	.9999930	-6	-1	.9999927	-7	-1	.9999924	-7	-1	11.6
11.7	-4	-1	.9999950	-4	-1	.9999948	-5	-1	.9999946	-5	-1	.9999944	-5	-1	11.7
11.8	-4	-1	.9999964	-4	-1	.9999962	-4	-1	.9999961	-4	-1	.9999959	-4	-1	11.8
11.9			.9999973			.9999972			.9999971			.9999970			11.9
12.0			.9999981			.9999980			.9999979			.9999978			12.0
12.1			.9999986			.9999985			.9999985			.9999984			12.1
12.2			.9999990			.9999989			.9999989			.9999988			12.2
12.3			.9999993			.9999992			.9999992			.9999992			12.3
12.4			.9999995			.9999994			.9999994			.9999994			12.4
12.5			.9999996			.9999996			.9999996			.9999996			12.5
12.6			.9999997			.9999997			.9999997			.9999997			12.6
12.7			.9999998			.9999998			.9999998			.9999998			12.7
12.8			.9999998			.9999998			.9999998			.9999998			12.8
12.9			.9999999			.9999999			.9999999			.9999999			12.9
13.0			.9999999			.9999999			.9999999			.9999999			13.0
13.1			.9999999			.9999999			.9999999			.9999999			13.1
13.2			1.0000000			1.0000000			1.0000000			1.0000000			13.2



Table with columns for u, p, I(u,p), and various derivative symbols (delta\_u, delta\_p). Rows are indexed by u from 2.2 to 8.0 and p from 40.0 to 41.0. Each cell contains numerical values with associated superscripts.



Table with columns for u, p values (40.0, 40.2, 40.4, 40.6, 40.8, 41.0), and corresponding I(u, p) values and their derivatives. The table contains numerical data for u ranging from 8.0 to 13.3 and p ranging from 40.0 to 41.0.

$u$	$p = 41.0$		$p = 41.2$		$p = 41.4$		$p = 41.6$		$p = 41.8$		$p = 42.0$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$I(u, p)$	$u$
2.3	.0000000		.0000000		.0000000		.0000000		.0000000		.0000000	2.3
2.4	.0000000	0	.0000000	0	.0000000	0	.0000000	0	.0000000	0	.0000000	2.4
2.5	.0000001	+1	.0000001	+1	.0000000	0	.0000000	+1	.0000000	+1	.0000000	2.5
2.6	.0000002	+2	.0000002	+2	.0000001	+1	.0000001	+1	.0000001	+1	.0000001	2.6
2.7	.0000005	+4	.0000004	+4	.0000004	+3	.0000003	+3	.0000003	+2	.0000003	2.7
2.8	.0000012	+9	.0000011	+7	.0000009	+6	.0000008	+7	.0000007	+6	.0000007	2.8
2.9	.0000028	+18	.0000025	+17	.0000022	+13	.0000020	+13	.0000018	+12	.0000016	2.9
3.0	.0000062	+36	.0000056	+32	.0000050	+30	.0000045	+26	.0000041	+24	.0000036	3.0
3.1	.0000132	+66	.0000119	+52	.0000108	+42	.0000098	+51	.0000088	+46	.0000080	3.1
3.2	.0000268	+121	.0000244	+111	.0000222	+102	.0000202	+94	.0000183	+87	.0000166	3.2
3.3	.0000525	+205	.0000480	+192	.0000438	+179	.0000400	+166	.0000365	+153	.0000333	3.3
3.4	.0000990	+346	.0000908	+323	.0000833	+300	.0000764	+289	.0000700	+269	.0000642	3.4
3.5	.0001801	+565	.0001659	+519	.0001528	+486	.0001407	+454	.0001295	+424	.0001191	3.5
3.6	.0003167	+864	.0002929	+812	.0002709	+781	.0002504	+745	.0002314	+711	.0002138	3.6
3.7	.0005397	+1298	.0005011	+1224	.0004651	+1165	.0004316	+1099	.0004004	+1025	.0003713	3.7
3.8	.0008925	+1896	.0008317	+1793	.0007749	+1748	.0007217	+1698	.0006719	+1642	.0006254	3.8
3.9	.0014349	+2687	.0013419	+2555	.0012546	+2428	.0011726	+2307	.0010956	+2191	.0010234	3.9
4.0	.0022460	+3705	.0021076	+3636	.0019771	+3374	.0018542	+3217	.0017384	+3066	.0016294	4.0
4.1	.0034276	+4974	.0032269	+4784	.0030370	+4562	.0028575	+4366	.0026878	+4178	.0025275	4.1
4.2	.0051066	+6596	.0048226	+6257	.0045531	+6012	.0042974	+5776	.0040550	+5544	.0038252	4.2
4.3	.0074364	+8907	.0070440	+8013	.0066704	+7727	.0063149	+7444	.0059766	+7178	.0056549	4.3
4.4	.0105969	+12031	.0100667	+10921	.0095604	+9698	.0090772	+9379	.0086160	+9068	.0081760	4.4
4.5	.0147925	+16203	.0140915	+12242	.0134202	+11885	.0127774	+11538	.0121622	+11191	.0115735	4.5
4.6	.0202484	+21509	.0193405	+14621	.0184685	+14243	.0176312	+13869	.0168275	+13493	.0160562	4.6
4.7	.0272045	+27443	.0260516	+17076	.0249411	+16899	.0238719	+16304	.0228426	+15923	.0218522	4.7
4.8	.0359069	+34981	.0344702	+19514	.0330377	+19154	.0317430	+18756	.0304500	+18375	.0292024	4.8
4.9	.0465984	+42712	.0448402	+21823	.0431377	+21479	.0414897	+21112	.0398949	+20732	.0383520	4.9
5.0	.0595071	+51888	.0573925	+23886	.0553397	+23577	.0533476	+23262	.0514150	+22937	.0495405	5.0
5.1	.0748346	+62521	.0723334	+25386	.0698994	+26340	.0675317	+25982	.0652288	+24819	.0629899	5.1
5.2	.0927442	+74967	.0898329	+26813	.0869931	+28547	.0842240	+28487	.0815245	+29274	.0788935	5.2
5.3	.1133505	+89232	.1100137	+27474	.1067515	+27399	.1035630	+27312	.1004476	+27208	.0974043	5.3
5.4	.1367100	+104894	.1329419	+27496	.1292498	+27626	.1256332	+27539	.1220915	+27586	.1186241	5.4
5.5	.1628143	+122680	.1586197	+26835	.1545007	+26978	.1504573	+27097	.1464890	+27202	.1425956	5.5
5.6	.1915866	+142213	.1869810	+25485	.1824492	+25732	.1779911	+25963	.1736067	+26176	.1692960	5.6
5.7	.2228807	+163509	.2178908	+23458	.2129709	+23809	.2081212	+24146	.2033420	+24466	.1986336	5.7
5.8	.2564837	+186050	.2511464	+20913	.2458737	+21259	.2406659	+21693	.2355239	+22107	.2304479	5.8
5.9	.2921217	+210785	.2864833	+17625	.2809024	+18067	.2753799	+18607	.2699165	+19169	.2645131	5.9
6.0	.3294682	+236808	.3235827	+14003	.3177465	+14692	.3119606	+15172	.3062260	+15742	.3005438	6.0
6.1	.3681550	+264219	.3620824	+10962	.3560498	+10655	.3500585	+11321	.3441097	+11940	.3382046	6.1
6.2	.4077841	+292799	.4015883	+5987	.3954226	+6593	.3892385	+7244	.3831874	+7839	.3771204	6.2
6.3	.4479411	+322443	.4416879	+1759	.4354547	+2413	.4292429	+3068	.4230539	+3724	.4168893	6.3
6.4	.4882084	+353111	.4819634	+2343	.4757281	+3061	.4695041	+3719	.4632928	+4399	.4570957	6.4
6.5	.5281782	+384814	.5220046	+6950	.5158309	+7688	.5096584	+8477	.5034888	+9264	.4973235	6.5
6.6	.5674638	+417243	.5614208	+9858	.5553684	+10612	.5493080	+11411	.5432409	+12206	.5371687	6.6
6.7	.6057099	+451289	.5998512	+13084	.5939747	+12605	.5880815	+13404	.5821731	+14199	.5762507	6.7
6.8	.6426005	+485843	.6369732	+16868	.6313205	+14399	.6256436	+15243	.6199436	+16086	.6142220	6.8
6.9	.6778651	+520908	.6725086	+18160	.6671204	+17833	.6617014	+18683	.6562528	+19531	.6507757	6.9
7.0	.7112822	+557482	.7062280	+19947	.7011370	+19701	.6960099	+19442	.6908478	+19173	.6856514	7.0
7.1	.7426811	+594717	.7379527	+21232	.7331835	+21064	.7283742	+20885	.7235255	+20693	.7186382	7.1
7.2	.7719413	+632611	.7675542	+22926	.7631236	+21985	.7586500	+21832	.7541339	+21677	.7495760	7.2
7.3	.7989908	+671055	.7949531	+22367	.7908702	+22343	.7867426	+22311	.7825706	+22266	.7783546	7.3
7.4	.8238024	+709999	.8201153	+22296	.8163825	+22338	.8126041	+22385	.8087805	+22386	.8049119	7.4
7.5	.8463893	+749443	.8430479	+21865	.8396612	+21958	.8362291	+22042	.8327519	+22119	.8292295	7.5
7.6	.8667995	+789387	.8637940	+21133	.8607441	+21268	.8576499	+21397	.8545114	+21520	.8513285	7.6
7.7	.8851108	+829831	.8824268	+20153	.8797002	+20223	.8769310	+20349	.8741189	+20469	.8712640	7.7
7.8	.9014243	+870775	.8990443	+18956	.8966240	+19183	.8941631	+19374	.8916615	+19562	.8891191	7.8
7.9	.9158591	+912219	.9137632	+17687	.9116295	+17899	.9094578	+18109	.9072479	+18317	.9049996	7.9
8.0	.9285469	+954163	.9267134	+16300	.9248451	+16824	.9229416	+17446	.9210026	+18065	.9190278	8.0







Table with columns for u, p values (42.0, 42.2, 42.4, 42.6, 42.8, 43.0), and corresponding I(u, p) values and their derivatives (delta\_u^2, delta\_p^2). Rows range from u=8.0 to 13.5.

Table with multiple columns for p values (43.0, 43.2, 43.4, 43.6, 43.8, 44.0) and rows for u values (2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8.0, 8.1, 8.2, 8.3, 8.4, 8.5). Each cell contains numerical data points for I(u, p) and its error bounds.















u	p = 46.0		p = 46.2		p = 46.4		p = 46.6		p = 46.8		p = 47.0		u		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
8.5	-14417	-279	.9410782	-14638	-282	.9395931	-14348	-285	.9380795	-15063	-288	.9365371	-15276	-291	8.5
8.6	-12965	-231	.9505678	-13195	-255	.9492872	-13406	-258	.9479809	-15019	-261	.9466486	-13352	-264	8.6
8.7	-11590	-225	.9587378	-11793	-228	.9576407	-11999	-231	.9565204	-12203	-234	.9553769	-12419	-237	8.7
8.8	-10255	-199	.9657285	-10482	-202	.9647943	-10643	-204	.9638396	-10840	-208	.9628642	-11036	-210	8.8
8.9	-9007	-174	.9716740	-9155	-177	.9708834	-9365	-180	.9700748	-9559	-183	.9692479	-9783	-185	8.9
9.0	-7847	-152	.9767010	-8011	-154	.9760359	-8179	-157	.9753550	-8345	-159	.9746583	-8518	-163	9.0
9.1	-6784	-131	.9809269	-6933	-133	.9803705	-7085	-136	.9798006	-7239	-138	.9792169	-7394	-140	9.1
9.2	-5823	-112	.9844593	-6059	-114	.9839966	-6096	-116	.9835223	-6234	-118	.9830361	-6374	-121	9.2
9.3	-4965	-95	.9873958	-5285	-97	.9870131	-5208	-99	.9866206	-5349	-101	.9862179	-5495	-103	9.3
9.4	-4293	-80	.9898238	-4510	-82	.9895091	-4418	-84	.9891859	-4525	-86	.9888542	-4635	-87	9.4
9.5	-3688	-67	.9918208	-3839	-69	.9915633	-3728	-71	.9912987	-3818	-72	.9910270	-3916	-73	9.5
9.6	-3155	-56	.9934548	-3188	-57	.9932452	-3118	-59	.9930297	-3200	-60	.9928082	-3283	-62	9.6
9.7	-2669	-46	.9947850	-2626	-47	.9946152	-2595	-49	.9944407	-2686	-50	.9942611	-2738	-51	9.7
9.8	-2231	-38	.9958626	-2099	-39	.9957258	-2147	-40	.9955851	-2205	-41	.9954402	-2269	-42	9.8
9.9	-1869	-31	.9967312	-1716	-32	.9966216	-1767	-33	.9965087	-1817	-34	.9963924	-1869	-34	9.9
10.0	-1564	-25	.9974282	-1405	-26	.9973407	-1445	-27	.9972506	-1459	-28	.9971577	-1534	-28	10.0
10.1	-1317	-20	.9979847	-1149	-21	.9979153	-1176	-22	.9978436	-1210	-22	.9977698	-1245	-23	10.1
10.2	-1086	-16	.9984272	-924	-17	.9983723	-962	-17	.9983156	-981	-18	.9982572	-1011	-18	10.2
10.3	-871	-13	.9987773	-742	-14	.9987341	-765	-14	.9986895	-790	-14	.9986435	-815	-15	10.3
10.4	-676	-10	.9990532	-595	-11	.9990193	-613	-11	.9989844	-634	-11	.9989483	-654	-12	10.4
10.5	-498	-8	.9992696	-474	-9	.9992432	-490	-9	.9992159	-505	-9	.9991877	-521	-9	10.5
10.6	-334	-6	.9994386	-375	-7	.9994181	-387	-7	.9993969	-400	-7	.9993750	-414	-7	10.6
10.7	-207	-5	.9995701	-293	-5	.9995543	-307	-6	.9995379	-317	-6	.9995209	-327	-6	10.7
10.8	-124	-4	.9996721	-233	-4	.9996598	-240	-4	.9996472	-249	-4	.9996341	-257	-6	10.8
10.9	-81	-3	.9997507	-183	-3	.9997413	-188	-3	.9997316	-194	-4	.9997216	-202	-4	10.9
11.0	-51	-2	.9998111	-142	-2	.9998040	-147	-2	.9997966	-152	-2	.9997889	-157	-2	11.0
11.1	-31	-1	.9998574	-110	-1	.9998520	-114	-1	.9998463	-118	-1	.9998405	-121	-1	11.1
11.2	-18	-1	.9998927	-85	-1	.9998886	-88	-1	.9998843	-91	-1	.9998799	-94	-1	11.2
11.3	-10	-1	.9999196	-66	-1	.9999164	-67	-1	.9999132	-70	-1	.9999099	-73	-1	11.3
11.4	-6	-1	.9999399	-50	-1	.9999376	-52	-1	.9999351	-54	-1	.9999326	-56	-1	11.4
11.5	-4	-1	.9999552	-38	-1	.9999535	-40	-1	.9999516	-41	-1	.9999498	-43	-1	11.5
11.6	-3	-1	.9999668	-29	-1	.9999654	-30	-1	.9999641	-30	-1	.9999627	-33	-1	11.6
11.7	-2	-1	.9999754	-22	-1	.9999744	-23	-1	.9999734	-23	-1	.9999723	-24	-1	11.7
11.8	-1	-1	.9999818	-16	-1	.9999811	-17	-1	.9999804	-18	-1	.9999796	-18	-1	11.8
11.9	-1	-1	.9999866	-12	-1	.9999861	-13	-1	.9999855	-13	-1	.9999850	-14	-1	11.9
12.0	-1	-1	.9999902	-10	-1	.9999898	-10	-1	.9999894	-10	-1	.9999890	-11	-1	12.0
12.1	-1	-1	.9999928	-8	-1	.9999925	-8	-1	.9999922	-7	-1	.9999919	-8	-1	12.1
12.2	-1	-1	.9999948	-6	-1	.9999946	-7	-1	.9999943	-6	-1	.9999941	-6	-1	12.2
12.3	-1	-1	.9999962	-4	-1	.9999960	-4	-1	.9999959	-4	-1	.9999957	-4	-1	12.3
12.4	-1	-1	.9999973	-3	-1	.9999971	-3	-1	.9999970	-3	-1	.9999969	-3	-1	12.4
12.5	-1	-1	.9999980	-2	-1	.9999979	-2	-1	.9999978	-2	-1	.9999978	-2	-1	12.5
12.6	-1	-1	.9999986	-1	-1	.9999985	-1	-1	.9999984	-1	-1	.9999984	-1	-1	12.6
12.7	-1	-1	.9999990	-1	-1	.9999989	-1	-1	.9999989	-1	-1	.9999988	-1	-1	12.7
12.8	-1	-1	.9999993	-1	-1	.9999992	-1	-1	.9999992	-1	-1	.9999992	-1	-1	12.8
12.9	-1	-1	.9999995	-1	-1	.9999994	-1	-1	.9999994	-1	-1	.9999994	-1	-1	12.9
13.0	-1	-1	.9999996	-1	-1	.9999996	-1	-1	.9999996	-1	-1	.9999996	-1	-1	13.0
13.1	-1	-1	.9999997	-1	-1	.9999997	-1	-1	.9999997	-1	-1	.9999997	-1	-1	13.1
13.2	-1	-1	.9999998	-1	-1	.9999998	-1	-1	.9999998	-1	-1	.9999998	-1	-1	13.2
13.3	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	13.3
13.4	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	13.4
13.5	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	.9999999	-1	-1	13.5
13.6	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	1.0000000	-1	-1	13.6

103  
75  
28  
9905







$u$	$p = 48.0$		$p = 48.2$		$p = 48.4$		$p = 48.6$		$p = 48.8$		$p = 49.0$		$u$		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
8.5	-16844	-307	.9249110	-16753	-309	.9231284	-16989	-312	.9213146	-17163	-314	.9194694	-17387	-317	8.5
8.6	+55	-251	.9365677	-15516	-284	.9350164	-15627	-286	.9334365	-15738	-289	.9318276	-15948	-291	8.6
8.7	-13860	-254	.9466928	-13870	-257	.9453517	-14089	-260	.9439846	-14289	-263	.9425912	-14499	-266	8.7
8.8	12238	-228	.9543099	-12442	-231	.9542790	-12646	-234	.9531038	-12852	-237	.9519049	-13058	-239	8.8
8.9	-10871	-202	.9629248	-11069	-205	.9619417	-11281	-208	.9609378	-11487	-211	.9599128	-11686	-214	8.9
9.0	-9075	-178	.9693122	-9757	-181	.9684783	-9941	-184	.9676261	-10127	-186	.9667552	-10313	-189	9.0
9.1	-8368	-155	.9747239	-8537	-158	.9740208	-8706	-161	.9733017	-8878	-163	.9725663	-9052	-166	9.1
9.2	-7259	-134	.9792819	-7419	-137	.9786927	-7597	-139	.9780895	-7723	-142	.9774722	-7853	-144	9.2
9.3	-6246	-116	.9830989	-6385	-118	.9826079	-6525	-120	.9821050	-6669	-122	.9815898	-6812	-124	9.3
9.4	-5339	-96	.9862774	-5482	-100	.9858706	-5586	-102	.9854536	-5716	-104	.9850262	-5846	-106	9.4
9.5	-4532	-83	.9889097	-4841	-85	.9885745	-4732	-87	.9882307	-4856	-89	.9878780	-4980	-90	9.5
9.6	-3822	-70	.9910779	-3917	-71	.9908032	-4014	-73	.9905213	-4114	-75	.9902318	-4218	-76	9.6
9.7	-3209	-56	.9928544	-3286	-60	.9926305	-3359	-61	.9924005	-3454	-63	.9921643	-3543	-64	9.7
9.8	-2667	-46	.9943024	-2736	-50	.9941209	-2810	-51	.9939343	-2884	-52	.9937425	-2959	-53	9.8
9.9	-2208	-40	.9954768	-2287	-41	.9953303	-2323	-42	.9951797	-2391	-43	.9950248	-2456	-44	9.9
10.0	-1815	-33	.9964245	-1887	-34	.9963069	-1919	-34	.9961860	-1974	-35	.9960615	-2028	-36	10.0
10.1	-1485	-27	.9971855	-1528	-27	.9970916	-1572	-28	.9969949	-1616	-29	.9968954	-1663	-30	10.1
10.2	-1208	-22	.9977937	-1242	-22	.9977191	-1289	-23	.9976422	-1318	-23	.9975630	-1366	-24	10.2
10.3	-977	-17	.9982776	-1006	-18	.9982186	-1033	-18	.9981577	-1069	-19	.9980950	-1102	-19	10.3
10.4	-787	-14	.9986607	-810	-14	.9986143	-836	-15	.9985663	-862	-16	.9985168	-887	-16	10.4
10.5	-630	-11	.9989628	-651	-11	.9989264	-671	-12	.9988887	-691	-12	.9988499	-713	-13	10.5
10.6	-502	-9	.9991998	-517	-9	.9991714	-534	-9	.9991420	-551	-10	.9991117	-569	-10	10.6
10.7	-398	-7	.9993851	-412	-7	.9993630	-424	-7	.9993402	-439	-8	.9993166	-453	-8	10.7
10.8	-315	-6	.9995292	-324	-6	.9995121	-336	-6	.9994945	-347	-6	.9994762	-357	-6	10.8
10.9	-246	-4	.9996409	-253	-4	.9996277	-264	-4	.9996141	-271	-6	.9996001	-282	-6	10.9
11.0	-193	-4	.9997271	-199	-4	.9997170	-207	-4	.9997066	-214	-4	.9996957	-220	-4	11.0
11.1	-150	-3	.9997934	-156	-3	.9997856	-161	-3	.9997777	-166	-3	.9997694	-173	-3	11.1
11.2	-117	-3	.9998441	-120	-3	.9998382	-124	-3	.9998321	-128	-3	.9998258	-134	-3	11.2
11.3	-90	-3	.9998828	-93	-3	.9998783	-96	-3	.9998737	-100	-3	.9998689	-104	-3	11.3
11.4	-69	-3	.9999122	-71	-3	.9999088	-74	-3	.9999053	-77	-3	.9999017	-80	-3	11.4
11.5	-53	-3	.9999344	-54	-3	.9999319	-57	-3	.9999292	-58	-3	.9999265	-61	-3	11.5
11.6	-40	-3	.9999512	-42	-3	.9999493	-43	-3	.9999473	-45	-3	.9999453	-47	-3	11.6
11.7	-30	-3	.9999638	-32	-3	.9999624	-33	-3	.9999609	-34	-3	.9999594	-36	-3	11.7
11.8	-23	-3	.9999732	-23	-3	.9999722	-25	-3	.9999711	-28	-3	.9999699	-27	-3	11.8
11.9	-18	-3	.9999803	-18	-3	.9999795	-19	-3	.9999787	-20	-3	.9999778	-20	-3	11.9
12.0	-13	-3	.9999855	-13	-3	.9999849	-14	-3	.9999843	-15	-3	.9999837	-16	-3	12.0
12.1	-10	-3	.9999894	-10	-3	.9999889	-10	-3	.9999885	-11	-3	.9999881	-12	-3	12.1
12.2	-7	-3	.9999922	-8	-3	.9999919	-8	-3	.9999916	-8	-3	.9999913	-9	-3	12.2
12.3	-5	-3	.9999943	-6	-3	.9999941	-6	-3	.9999939	-6	-3	.9999936	-6	-3	12.3
12.4	-4	-3	.9999959	-4	-3	.9999957	-4	-3	.9999956	-5	-3	.9999954	-5	-3	12.4
12.5		-3	.9999970		-3	.9999969		-3	.9999968	-4	-3	.9999967	-4	-3	12.5
12.6		-3	.9999979		-3	.9999978		-3	.9999977		-3	.9999976		-3	12.6
12.7		-3	.9999984		-3	.9999984		-3	.9999983		-3	.9999983		-3	12.7
12.8		-3	.9999989		-3	.9999988		-3	.9999988		-3	.9999987		-3	12.8
12.9		-3	.9999992		-3	.9999992		-3	.9999991		-3	.9999991		-3	12.9
13.0		-3	.9999994		-3	.9999994		-3	.9999994		-3	.9999994		-3	13.0
13.1		-3	.9999996		-3	.9999996		-3	.9999996		-3	.9999995		-3	13.1
13.2		-3	.9999997		-3	.9999997		-3	.9999997		-3	.9999997		-3	13.2
13.3		-3	.9999998		-3	.9999998		-3	.9999998		-3	.9999998		-3	13.3
13.4		-3	.9999999		-3	.9999998		-3	.9999998		-3	.9999998		-3	13.4
13.5		-3	.9999999		-3	.9999999		-3	.9999999		-3	.9999999		-3	13.5
13.6		-3	.9999999		-3	.9999999		-3	.9999999		-3	.9999999		-3	13.6
13.7		-3	1.0000000		-3	1.0000000		-3	1.0000000		-3	1.0000000		-3	13.7





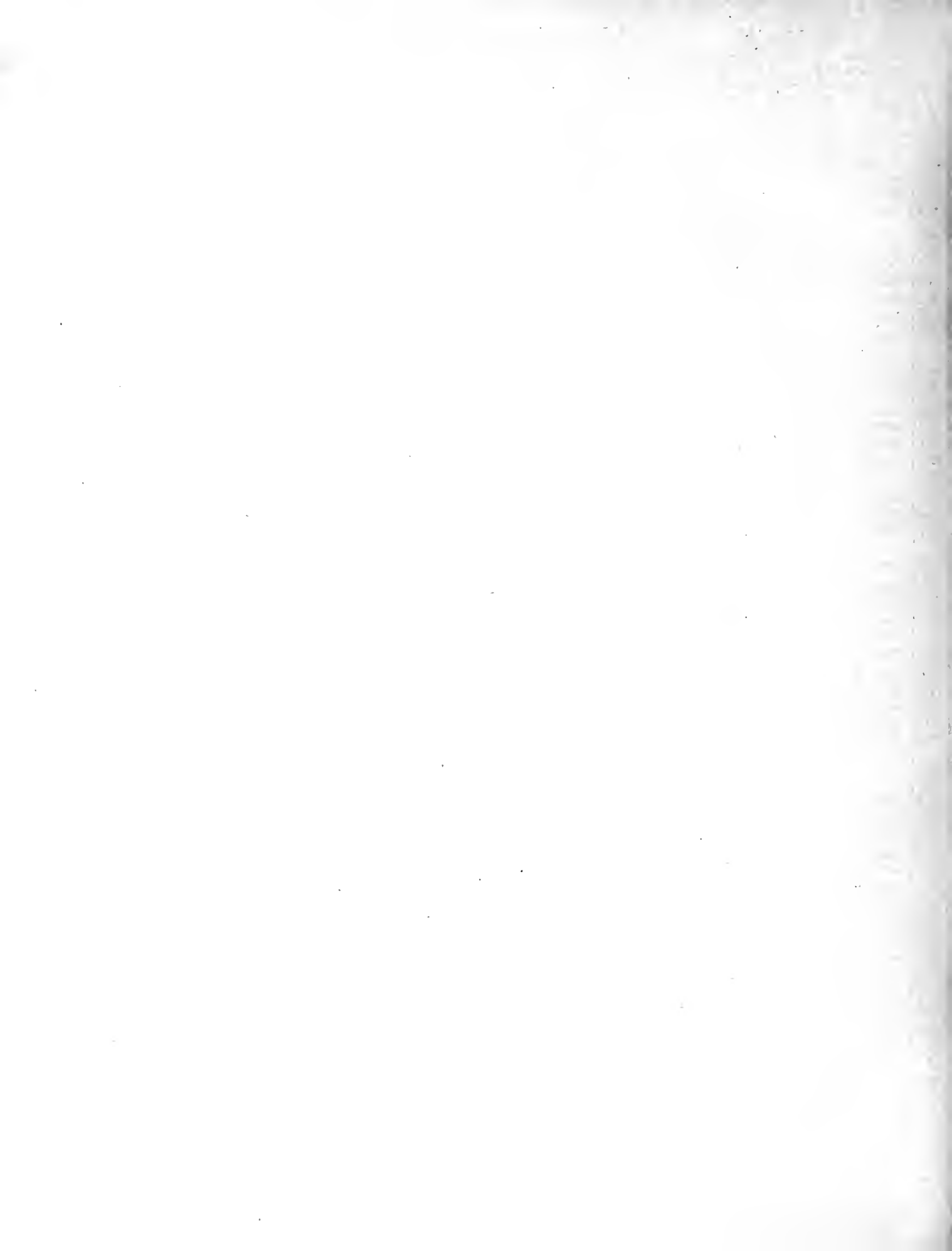




TABLE II  
THE  $I(u, p)$  FUNCTION  
FOR NEGATIVE VALUES OF THE ARGUMENT  $p$



Table with columns for u, p, and I(u, p) for various values of p from -0.75 to -0.50. Each row represents a value of u from 0 to 6.0. The table contains numerical data for the function I(u, p) and its derivatives.









$u$	$p = -0.95$			$p = -0.90$			$p = -0.85$			$p = -0.80$			$p = -0.75$			$u$
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	
18.0	.9997963		*	.9999349		*	.9999739		*	.9999880		*	.9999939		—32	18.0
18.1	.9998017			.9999372			.9999750			.9999885			.9999942		—30	18.1
18.2	.9998069			.9999394			.9999760			.9999891			.9999945		—31	18.2
18.3	.9998120			.9999416			.9999771			.9999896			.9999948		—29	18.3
18.4	.9998170			.9999436			.9999780			.9999901			.9999951		—30	18.4
18.5	.9998218			.9999456			.9999789			.9999906			.9999953		—28	18.5
18.6	.9998265			.9999475			.9999798			.9999910			.9999956		—25	18.6
18.7	.9998311			.9999494			.9999807			.9999914			.9999958		—27	18.7
18.8	.9998355			.9999512			.9999815			.9999918			.9999960		—24	18.8
18.9	.9998398			.9999529			.9999823			.9999922			.9999962		—25	18.9
19.0	.9998440			.9999545			.9999830			.9999926			.9999964		—23	19.0
19.1	.9998481			.9999561			.9999837			.9999930			.9999966		—22	19.1
19.2	.9998521			.9999577			.9999844			.9999933			.9999968		—20	19.2
19.3	.9998560			.9999592			.9999850			.9999936			.9999970		—23	19.3
19.4	.9998598			.9999606			.9999857			.9999939			.9999971		—19	19.4
19.5	.9998634			.9999620			.9999863			.9999942			.9999973		—17	19.5
19.6	.9998670			.9999633			.9999868			.9999945			.9999974		—20	19.6
19.7	.9998705			.9999646			.9999874			.9999947			.9999976		—16	19.7
19.8	.9998739			.9999658			.9999879			.9999950			.9999977		—15	19.8
19.9	.9998772			.9999670			.9999884			.9999952			.9999978		—19	19.9
20.0	.9998804			.9999682			.9999889			.9999954			.9999979		—14	20.0
20.1	.9998835			.9999693			.9999894			.9999957			.9999980		—16	20.1
20.2	.9998865			.9999704			.9999898			.9999959			.9999981		—13	20.2
20.3	.9998895			.9999714			.9999902			.9999961			.9999982		—17	20.3
20.4	.9998924			.9999724			.9999906			.9999962			.9999983		—12	20.4
20.5	.9998952			.9999734			.9999910			.9999964			.9999984		—15	20.5
20.6	.9998979			.9999743			.9999914			.9999966			.9999985		—11	20.6
20.7	.9999005			.9999752			.9999918			.9999967			.9999986		—11	20.7
20.8	.9999031			.9999761			.9999921			.9999969			.9999986		—10	20.8
20.9	.9999056			.9999769			.9999924			.9999970			.9999987		—10	20.9
21.0	.9999081			.9999777			.9999927			.9999972			.9999988		—9	21.0
21.1	.9999105			.9999785			.9999930			.9999973			.9999988		—9	21.1
21.2	.9999128			.9999792			.9999933			.9999974			.9999989		—9	21.2
21.3	.9999150			.9999799			.9999936			.9999976			.9999990		—8	21.3
21.4	.9999172			.9999806			.9999939			.9999977			.9999990		—12	21.4
21.5	.9999194			.9999813			.9999941			.9999978			.9999991		—6	21.5
21.6	.9999215			.9999820			.9999944			.9999979			.9999991		—11	21.6
21.7	.9999235			.9999826			.9999946			.9999980			.9999992		—7	21.7
21.8	.9999255			.9999832			.9999948			.9999981			.9999992		—7	21.8
21.9	.9999274			.9999838			.9999950			.9999982			.9999992		—10	21.9
22.0	.9999292			.9999843			.9999952			.9999983			.9999993		—6	22.0
22.1	.9999311			.9999849			.9999954			.9999983			.9999993		—9	22.1
22.2	.9999328			.9999854			.9999956			.9999984			.9999994		—8	22.2
22.3	.9999346			.9999859			.9999958			.9999985			.9999994		—6	22.3
22.4	.9999363			.9999864			.9999960			.9999986			.9999994		—8	22.4
22.5	.9999379			.9999869			.9999962			.9999986			.9999995		—5	22.5
22.6	.9999395			.9999873			.9999963			.9999987			.9999995		—8	22.6
22.7	.9999410			.9999878			.9999965			.9999988			.9999995		—5	22.7
22.8	.9999426			.9999882			.9999966			.9999988			.9999995		—5	22.8
22.9	.9999440			.9999886			.9999967			.9999989			.9999996		—4	22.9
23.0	.9999455			.9999890			.9999969			.9999989			.9999996		—4	23.0
23.1	.9999469			.9999894			.9999970			.9999990			.9999996		—4	23.1
23.2	.9999482			.9999897			.9999971			.9999990			.9999996		—4	23.2
23.3	.9999495			.9999901			.9999973			.9999991			.9999996		—4	23.3
23.4	.9999508			.9999904			.9999974			.9999991			.9999997		—4	23.4
23.5	.9999521			.9999908			.9999975			.9999991			.9999997		—6	23.5
23.6	.9999533			.9999911			.9999976			.9999992			.9999997		—6	23.6
23.7	.9999545			.9999914			.9999977			.9999992			.9999997		—5	23.7
23.8	.9999557			.9999917			.9999978			.9999993			.9999997		—6	23.8
23.9	.9999568			.9999920			.9999979			.9999993			.9999997		—6	23.9
24.0	.9999579			.9999922			.9999980			.9999993			.9999998		—6	24.0

\* Interpolation by  $p$ -differences inadequate.











u	p = -0.95			p = -0.90			p = -0.85			p = -0.80			p = -0.75			u
	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	I(u, p)	$\delta_u^2$	$\delta_p^2$	
36.0	.9999980			.9999999												36.0
36.1	.9999980			.9999999												36.1
36.2	.9999981			.9999999												36.2
36.3	.9999981			.9999999												36.3
36.4	.9999982			.9999999												36.4
36.5	.9999982			.9999999												36.5
36.6	.9999982			.9999999												36.6
36.7	.9999983			.9999999												36.7
36.8	.9999983			.9999999												36.8
36.9	.9999984			.9999999												36.9
37.0	.9999984			.9999999												37.0
37.1	.9999984			.9999999												37.1
37.2	.9999985			.9999999												37.2
37.3	.9999985			.9999999												37.3
37.4	.9999986			.9999999												37.4
37.5	.9999986			.9999999												37.5
37.6	.9999986			.9999999												37.6
37.7	.9999987			.9999999												37.7
37.8	.9999987			.9999999												37.8
37.9	.9999987			.9999999												37.9
38.0	.9999988			.9999999												38.0
38.1	.9999988			.9999999												38.1
38.2	.9999988			.9999999												38.2
38.3	.9999988			.9999999												38.3
38.4	.9999989			.9999999												38.4
38.5	.9999989			.9999999												38.5
38.6	.9999989			.9999999												38.6
38.7	.9999990			.9999999												38.7
38.8	.9999990			.9999999												38.8
38.9	.9999990			.9999999												38.9
39.0	.9999990			.9999999												39.0
39.1	.9999990			1.0000000												39.1
39.2	.9999991															
39.3	.9999991															
39.4	.9999991															
39.5	.9999991															
39.6	.9999992															
39.7	.9999992															
39.8	.9999992															
39.9	.9999992															
40.0	.9999992															
40.1	.9999993															
40.2	.9999993															
40.3	.9999993															
40.4	.9999993															
40.5	.9999993															
40.6	.9999993															
40.7	.9999994															
40.8	.9999994															
40.9	.9999994															
41.0	.9999994															
41.1	.9999994															
41.2	.9999994															
41.3	.9999994															
41.4	.9999995															
41.5	.9999995															
41.6	.9999995															
41.7	.9999995															
41.8	.9999995															
41.9	.9999995															
42.0	.9999995															



$u$	$p = -0.95$			$p = -0.90$			$p = -0.85$			$p = -0.80$			$p = -0.75$			$u$
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	
48.0	.9999999															
48.1	.9999999															
48.2	.9999999															
48.3	.9999999															
48.4	.9999999															
48.5	.9999999															
48.6	.9999999															
48.7	.9999999															
48.8	.9999999															
48.9	.9999999															
49.0	.9999999															
49.1	.9999999															
49.2	.9999999															
49.3	.9999999															
49.4	.9999999															
49.5	.9999999															
49.6	.9999999															
49.7	.9999999															
49.8	.9999999															
49.9	.9999999															
50.0	.9999999															
50.1	.9999999															
50.2	.9999999															
50.3	.9999999															
50.4	.9999999															
50.5	.9999999															
50.6	.9999999															
50.7	.9999999															
50.8	.9999999															
50.9	.9999999															
51.0	.9999999															
51.1	.9999999															
51.2	.9999999															
51.3	1.0000000															





u	p = -0.25		p = -0.20		p = -0.15		p = -0.10		p = -0.05		p = 0.0		u				
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		
0	—	0	0.000000	—	0	0.000000	—	0	0.000000	—	0	0.000000	—	0	0		
1	-0.02657	+207.86	1.496222	-4.86263	+1860.1	1.336763	-3.61337	+1661.1	1.119365	-2.55361	+1493.3	1.066100	-1.65274	+1339.0	0.951626	-0.90560	+1201.0
2	-0.04633	+169.84	2.506186	-1.78949	+1667.4	2.312139	-1.53550	+1418.7	2.132579	-1.28753	+1340.7	1.966426	-1.04818	+1241.9	1.812692	-0.81940	+1151.2
3	-0.05621	+143.00	3.337201	-1.21249	+1346.2	3.133966	-1.09772	+1170.9	2.942440	-0.97896	+1102.0	2.761934	-0.86038	+1039.0	2.591818	-0.74144	+980.4
4	-0.06149	+102.97	4.046967	-0.82803	+973.9	3.846021	-0.76928	+823.0	3.654305	-0.69624	+773.4	3.471368	-0.73992	+836.9	3.296800	-0.67089	+798.9
5	-0.06379	+61.01	4.663930	-0.53035	+674.4	4.471147	-0.52082	+571.2	4.285546	-0.46393	+527.5	4.106820	-0.42788	+486.9	3.934693	-0.40702	+454.9
6	-0.06370	+46.79	5.205790	-0.38984	+488.4	5.024221	-0.38984	+488.4	4.848189	-0.35193	+449.9	4.677474	-0.32816	+416.6	4.511884	-0.30628	+388.7
7	-0.06149	+33.00	5.684942	-0.29371	+371.1	5.516054	-0.29371	+371.1	5.351399	-0.26804	+339.9	5.190810	-0.24871	+312.2	5.034147	-0.23498	+290.7
8	-0.05821	+24.00	6.110697	-0.22443	+275.7	5.955015	-0.22443	+275.7	5.802542	-0.20604	+259.9	5.653143	-0.18925	+239.9	5.506710	-0.17726	+227.8
9	-0.05494	+18.00	6.490376	-0.18102	+209.4	6.347853	-0.18102	+209.4	6.207737	-0.16725	+193.3	6.069917	-0.15568	+181.8	5.934303	-0.14610	+173.7
1.0	-0.05166	+14.00	6.829916	-0.14913	+161.3	6.700153	-0.14913	+161.3	6.572175	-0.14693	+153.3	6.445885	-0.13691	+141.1	6.321206	-0.12920	+135.2
1.1	-0.04838	+10.00	7.134242	-0.12421	+121.1	7.016629	-0.12421	+121.1	6.900322	-0.13246	+121.1	6.785232	-0.12417	+114.7	6.671289	-0.11834	+109.5
1.2	-0.04510	+7.00	7.407504	-0.10465	+94.6	7.301315	-0.10465	+94.6	7.196063	-0.12003	+115.5	7.091666	-0.11255	+109.9	6.988058	-0.10745	+104.7
1.3	-0.04182	+5.00	7.653249	-0.08938	+81.1	7.557696	-0.08938	+81.1	7.462801	-0.11419	+109.9	7.368483	-0.10745	+109.9	7.274682	-0.10112	+101.4
1.4	-0.03854	+4.00	7.874531	-0.07835	+70.0	7.788811	-0.07835	+70.0	7.703535	-0.10819	+109.9	7.618627	-0.10112	+109.9	7.534030	-0.09512	+97.1
1.5	-0.03526	+3.00	8.074006	-0.06948	+61.3	7.997322	-0.06948	+61.3	7.920920	-0.10219	+109.9	7.844731	-0.09512	+109.9	7.768698	-0.08911	+93.8
1.6	-0.03198	+2.00	8.253995	-0.06247	+54.4	8.185573	-0.06247	+54.4	8.117315	-0.09619	+109.9	8.049153	-0.08911	+109.9	7.981035	-0.08310	+90.5
1.7	-0.02870	+1.50	8.416538	-0.05724	+48.4	8.355642	-0.05724	+48.4	8.294821	-0.09019	+109.9	8.234011	-0.08310	+109.9	8.173165	-0.07709	+87.2
1.8	-0.02542	+1.00	8.563433	-0.05343	+43.4	8.509367	-0.05343	+43.4	8.455313	-0.08419	+109.9	8.401209	-0.07709	+109.9	8.347011	-0.07108	+83.9
1.9	-0.02214	+0.75	8.696274	-0.05062	+39.4	8.648390	-0.05062	+39.4	8.600470	-0.07819	+109.9	8.552459	-0.07108	+109.9	8.504314	-0.06507	+80.6
2.0	-0.01886	+0.50	8.816476	-0.04871	+36.4	8.774170	-0.04871	+36.4	8.731795	-0.07219	+109.9	8.689301	-0.06507	+109.9	8.646647	-0.05906	+77.3
2.1	-0.01558	+0.25	8.925299	-0.04765	+34.4	8.888014	-0.04765	+34.4	8.850638	-0.06619	+109.9	8.813125	-0.05906	+109.9	8.775436	-0.05305	+74.0
2.2	-0.01230	+0.10	9.023867	-0.04724	+33.4	8.991093	-0.04724	+33.4	8.958212	-0.06019	+109.9	8.925182	-0.05305	+109.9	8.891968	-0.04704	+70.7
2.3	-0.00902	+0.05	9.113186	-0.04742	+33.4	9.084454	-0.04742	+33.4	9.055605	-0.05419	+109.9	9.026601	-0.04704	+109.9	8.997412	-0.04103	+67.4
2.4	-0.00574	+0.02	9.194155	-0.04819	+33.4	9.169038	-0.04819	+33.4	9.143798	-0.04819	+109.9	9.118402	-0.04103	+109.9	9.092820	-0.03502	+64.1
2.5	-0.00246	+0.01	9.267582	-0.04956	+33.4	9.245692	-0.04956	+33.4	9.223676	-0.04419	+109.9	9.201504	-0.03502	+109.9	9.179150	-0.02901	+60.8
2.6	-0.00018	+0.00	9.334190	-0.05143	+33.4	9.315177	-0.05143	+33.4	9.296035	-0.03819	+109.9	9.276738	-0.02901	+109.9	9.257264	-0.02300	+57.5
2.7	0.00210	-0.01	9.394633	-0.05380	+33.4	9.378176	-0.05380	+33.4	9.361591	-0.03219	+109.9	9.344853	-0.02300	+109.9	9.327945	-0.01700	+54.2
2.8	0.00402	-0.02	9.449497	-0.05667	+33.4	9.435309	-0.05667	+33.4	9.420994	-0.02619	+109.9	9.406529	-0.01700	+109.9	9.391899	-0.01100	+50.9
2.9	0.00594	-0.03	9.499308	-0.06004	+33.4	9.487132	-0.06004	+33.4	9.474827	-0.02019	+109.9	9.462377	-0.01100	+109.9	9.449768	-0.00500	+47.6
3.0	0.00786	-0.04	9.544545	-0.06391	+33.4	9.534146	-0.06391	+33.4	9.523620	-0.01419	+109.9	9.512951	-0.00500	+109.9	9.502129	0.00100	+44.3
3.1	0.00978	-0.05	9.585637	-0.06828	+33.4	9.576806	-0.06828	+33.4	9.567848	-0.00819	+109.9	9.558752	0.00100	+109.9	9.549508	0.00700	+41.0
3.2	0.01170	-0.06	9.622971	-0.07315	+33.4	9.615521	-0.07315	+33.4	9.607944	-0.00219	+109.9	9.602023	0.00700	+109.9	9.592378	0.01300	+37.7
3.3	0.01362	-0.07	9.656898	-0.07852	+33.4	9.650661	-0.07852	+33.4	9.644298	0.00381	+109.9	9.637802	0.01300	+109.9	9.631168	0.01900	+34.4
3.4	0.01554	-0.08	9.687734	-0.08439	+33.4	9.682560	-0.08439	+33.4	9.677261	0.00981	+109.9	9.671831	0.01900	+109.9	9.666267	0.02500	+31.1
3.5	0.01746	-0.09	9.715767	-0.09076	+33.4	9.711522	-0.09076	+33.4	9.707152	0.01581	+109.9	9.702654	0.02500	+109.9	9.698026	0.03100	+27.8
3.6	0.01938	-0.10	9.741255	-0.09763	+33.4	9.737821	-0.09763	+33.4	9.734261	0.02181	+109.9	9.730575	0.03100	+109.9	9.726763	0.03700	+24.5
3.7	0.02130	-0.11	9.764433	-0.10490	+33.4	9.761703	-0.10490	+33.4	9.758847	0.02781	+109.9	9.755867	0.03700	+109.9	9.752765	0.04300	+21.2
3.8	0.02322	-0.12	9.785514	-0.11257	+33.4	9.783394	-0.11257	+33.4	9.781148	0.03381	+109.9	9.787870	0.04300	+109.9	9.776292	0.04900	+17.9
3.9	0.02514	-0.13	9.804690	-0.12064	+33.4	9.803096	-0.12064	+33.4	9.801377	0.03981	+109.9	9.799538	0.04900	+109.9	9.797581	0.05500	+14.6
4.0	0.02706	-0.14	9.822136	-0.12911	+33.4	9.820994	-0.12911	+33.4	9.819728	0.04581	+109.9	9.818343	0.05500	+109.9	9.816844	0.06100	+11.3
4.1	0.02898	-0.15	9.838309	-0.13798	+33.4	9.837255	-0.13798	+33.4	9.836377	0.05181	+109.9	9.835381	0.06100	+109.9	9.834273	0.06700	+8.0
4.2	0.03090	-0.16	9.852454	-0.14725	+33.4	9.852029	-0.14725	+33.4	9.851482	0.05781	+109.9	9.850818	0.06700	+109.9	9.850044	0.07300	+4.7
4.3	0.03282	-0.17	9.865600	-0.15692	+33.4	9.865455	-0.15692	+33.4	9.865187	0.06381	+109.9	9.864805	0.07300	+109.9	9.864314	0.07900	+1.4
4.4	0.03474	-0.18	9.877565	-0.16709	+33.4	9.877655	-0.16709	+33.4	9.877623	0.06981	+109.9	9.877478	0.07900	+109.9	9.877227	0.08500	-1.9
4.5	0.03666	-0.19	9.888457	-0.17776	+33.4	9.888743	-0.17776	+33.4	9.888907	0.07581	+109.9	9.888960	0.08500	+109.9	9.888910	0.09100	-5.2
4.6	0.03858	-0.20	9.898373	-0.18893	+33.4	9.898820	-0.18893	+33.4	9.899148	0.08181	+109.9	9.899365	0.09100	+109.9	9.899482	0.09700	-8.5
4.7	0.04050	-0.21	9.907401	-0.20060	+33.4	9.907980	-0.20060	+33.4	9.908441	0.08781	+109.9	9.908794	0.09700	+109.9	9.909017	0.10300	-11.8
4.8	0.04242	-0.22	9.915622	-0.21277	+33.4	9.916307	-0.21277	+33.4	9.916875	0.09381	+109.9	9.917337	0.10300	+109.9	9.917703	0.10900	-15.1
4.9	0.04434	-0.23	9.923108	-0.22544	+33.4	9.923876	-0.22544	+33.4	9.924530	0.09981	+109.9	9.925080	0.10900	+109.9	9.925534	0.11500	-18.4
5.0	0.04626	-0.24	9.929925	-0.23861	+33.4	9.930758	-0.23861	+33.4	9.931478	0.10581	+109.9	9.932096	0.11500	+109.9	9.932621	0.12100	-21.7
5.1	0.04818	-0.25	9.936135	-0.25228	+33.4	9.937015	-0.25228	+33.4	9.937785	0.11181	+109.9	9.938454	0.12100	+109.9	9.939033	0.12700	-25.0
5.2	0.05010	-0.26	9.941791	-0.26645	+33.4	9.942704	-0.26645	+33.4	9.943509	0.11781	+109.9	9.944216	0.12700	+109.9	9.944834	0.13300	-28.3
5.3	0.05202	-0.27	9.946943	-0.28112	+33.4	9.947877	-0.28112	+33.4	9.948705	0.12381	+109.9	9.949437	0.13300	+109.9	9.949008	0.13900	-31.6
5.4	0.05394	-0.28	9.951637	-0.29629	+33.4	9.952582	-0.29629	+33.4	9.953422	0.12981	+109.9	9.954170	0.13900	+109.9	9.954834	0.14500	-34.9
5.5	0.05586	-0.29	9.955913	-0.31196	+33.4	9.956860	-0.31196	+33.4	9.957705	0.13581	+109.9	9.958459	0.14500	+109.9	9.959132	0.15100	-38.2
5.6	0.05778	-0.30	9.959809	-0.32813	+33.4	9.960750	-0.32813	+33.4	9.961592	0.14181	+109.9	9.962346	0.15100	+109.9	9.963021	0.15700	-41.5
5.7	0.05970	-0.31	9.963359	-0.3													

u	p = -0.50			p = -0.45			p = -0.40			p = -0.35			p = -0.30			p = -0.25	
	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	I(u, p)	u
6.0	.9964197	-226 -11	-267 -9	.9965992	-224 -9	-223 -9	.9977563	-227 -7	-165 -7	.9968946	-280 -6	-189 -6	.9970170	-233 -4	-186 -4	.9971258	6.0
6.1	.9966873	-226 -11	-264 -9	.9968621	-200 -9	-226 -9	.9970149	-206 -7	-184 -7	.9971493	-211 -6	-186 -6	.9972681	-213 -5	-183 -5	.9973736	6.1
6.2	.9969346	-167 -12	-261 -9	.9971045	-190 -9	-218 -9	.9972527	-191 -7	-181 -7	.9973829	-103 -6	-182 -6	.9974979	-195 -5	-180 -5	.9975999	6.2
6.3	.9971632	-174 -12	-257 -9	.9973279	-174 -9	-212 -9	.9974714	-177 -7	-177 -7	.9975972	-177 -6	-149 -6	.9977082	-177 -5	-126 -5	.9978066	6.3
6.4	.9973744	-160 -12	-252 -9	.9975338	-161 -9	-206 -9	.9976724	-160 -7	-173 -7	.9977938	-162 -6	-145 -6	.9979007	-164 -5	-122 -5	.9979954	6.4
6.5	.9975698	-148 -13	-248 -9	.9977237	-146 -9	-203 -9	.9978574	-149 -7	-165 -7	.9979742	-149 -6	-141 -6	.9980770	-150 -5	-119 -5	.9981679	6.5
6.6	.9977504	-136 -13	-243 -9	.9978988	-136 -9	-198 -9	.9980275	-137 -7	-164 -7	.9981397	-136 -6	-130 -6	.9982383	-137 -5	-115 -5	.9983254	6.6
6.7	.9979174	-126 -13	-238 -9	.9980603	-125 -9	-193 -9	.9981839	-124 -7	-159 -7	.9982916	-125 -6	-132 -6	.9983861	-125 -5	-111 -5	.9984694	6.7
6.8	.9980718	-110 -13	-232 -9	.9982092	-116 -9	-188 -9	.9983279	-116 -7	-155 -7	.9984310	-115 -6	-128 -6	.9985213	-115 -5	-108 -5	.9986009	6.8
6.9	.9982146	-106 -13	-227 -9	.9983466	-106 -9	-183 -9	.9984603	-106 -7	-150 -7	.9985589	-105 -6	-124 -6	.9986452	-105 -5	-104 -5	.9987210	6.9
7.0	.9983468	-98 -14	-221 -9	.9984734	-98 -9	-178 -9	.9985821	-98 -7	-146 -7	.9986764	-96 -6	-120 -6	.9987586	-95 -5	-100 -5	.9988308	7.0
7.1	.9984690	-91 -14	-215 -9	.9985903	-90 -9	-173 -9	.9986943	-90 -7	-141 -7	.9987842	-88 -6	-116 -6	.9988625	-86 -5	-96 -5	.9989311	7.1
7.2	.9985821	-85 -14	-209 -9	.9986982	-83 -9	-168 -9	.9987974	-83 -7	-135 -7	.9988831	-81 -6	-112 -6	.9989576	-79 -5	-95 -5	.9990228	7.2
7.3	.9986867	-76 -14	-204 -9	.9987977	-77 -9	-162 -9	.9988924	-76 -7	-132 -7	.9989740	-74 -6	-108 -6	.9990447	-73 -5	-89 -5	.9991066	7.3
7.4	.9987835	-71 -14	-198 -9	.9988896	-71 -9	-157 -9	.9989798	-69 -7	-127 -7	.9990574	-69 -6	-104 -6	.9991246	-67 -5	-86 -5	.9991832	7.4
7.5	.9988732	-68 -14	-192 -9	.9989743	-65 -9	-152 -9	.9990603	-84 -7	-123 -7	.9991340	-68 -6	-100 -6	.9991977	-61 -5	-82 -5	.9992531	7.5
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7.9	.9991697	-49 -13	-168 -9	.9992530	-47 -9	-132 -9	.9993231	-46 -7	-105 -7	.9993826	-44 -6	-85 -6	.9994337	-43 -5	-69 -5	.9994778	7.9
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9.2	.9996903	-17 -11	-102 -9	.9997319	-17 -9	-77 -9	.9997657	-16 -7	-60 -7	.9997936	-15 -6	-46 -6	.9998168	-14 -5	-37 -5	.9998363	9.2
9.3	.9997128	-16 -11	-97 -9	.9997521	-15 -9	-74 -9	.9997840	-14 -7	-57 -7	.9998102	-13 -6	-44 -6	.9998320	-13 -5	-35 -5	.9998502	9.3
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10.7	.9998998	-6 -8	-52 -9	.9999171	-5 -9	-38 -9	.9999306	-5 -7	-28 -7	.9999413	-4 -6	-21 -6	.9999499	-4 -5	-16 -5	.9999568	10.7
10.8	.9999070	-5 -8	-50 -9	.9999233	-5 -9	-36 -9	.9999360	-4 -7	-27 -7	.9999460	-4 -6	-20 -6	.9999540	-4 -5	-15 -5	.9999605	10.8
10.9	.9999137	-5 -8	-48 -9	.9999290	-4 -9	-34 -9	.9999409	-4 -7	-25 -7	.9999503	-4 -6	-19 -6	.9999578	-4 -5	-14 -5	.9999639	10.9
11.0	.9999199	-5 -8	-45 -9	.9999343	-4 -9	-33 -9	.9999455	-4 -7	-24 -7	.9999543	-4 -6	-18 -6	.9999613	-4 -5	-13 -5	.9999669	11.0
11.1	.9999257	-4 -8	-43 -9	.9999393	-4 -9	-31 -9	.9999497	-4 -7	-23 -7	.9999580	-4 -6	-17 -6	.9999645	-4 -5	-12 -5	.9999697	11.1
11.2	.9999310	-4 -8	-41 -9	.9999438	-4 -9	-29 -9	.9999536	-4 -7	-22 -7	.9999613	-4 -6	-16 -6	.9999674	-4 -5	-11 -5	.9999723	11.2
11.3	.9999360	-4 -8	-39 -9	.9999480	-4 -9	-28 -9	.9999572	-4 -7	-20 -7	.9999644	-4 -6	-15 -6	.9999701	-4 -5	-11 -5	.9999747	11.3
11.4	.9999406	-4 -8	-37 -9	.9999519	-4 -9	-26 -9	.9999605	-4 -7	-19 -7	.9999673	-4 -6	-14 -6	.9999726	-4 -5	-10 -5	.9999768	11.4
11.5	.9999449	-3 -8	-35 -9	.9999555	-4 -9	-24 -9	.9999636	-4 -7	-18 -7	.9999699	-4 -6	-13 -6	.9999748	-4 -5	-10 -5	.9999788	11.5
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11.7	.9999525	-3															

$u$	$p = -0.25$		$p = -0.20$		$p = -0.15$		$p = -0.10$		$p = -0.05$		$p = 0.0$		$u$		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
6.0	-235	-117	.9972228	-237	-102	.9973097	-241	-89	.9973877	-244	-78	.9974579	-248	-69	6.0
6.1	-216	-114	.9974677	-217	-89	.9975519	-219	-86	.9976275	-220	-75	.9976956	-223	-68	6.1
6.2	-196	-111	.9976909	-198	-86	.9977722	-199	-83	.9978453	-201	-73	.9979111	-202	-64	6.2
6.3	-176	-107	.9978943	-180	-93	.9979727	-181	-80	.9980430	-181	-70	.9981064	-183	-61	6.3
6.4	-163	-104	.9980797	-164	-90	.9981550	-164	-77	.9982226	-165	-67	.9982835	-166	-59	6.4
6.5	-149	-101	.9982487	-149	-87	.9983209	-150	-74	.9983857	-151	-65	.9984439	-150	-57	6.5
6.6	-136	-97	.9984028	-138	-84	.9984719	-136	-62	.9985337	-135	-62	.9985894	-136	-54	6.6
6.7	-124	-94	.9985433	-124	-81	.9986092	-124	-69	.9986682	-124	-60	.9987212	-123	-52	6.7
6.8	-114	-90	.9986714	-115	-78	.9987342	-113	-66	.9987903	-112	-57	.9988408	-112	-50	6.8
6.9	-104	-86	.9987882	-103	-75	.9988479	-102	-63	.9989012	-102	-55	.9989491	-101	-48	6.9
7.0	-95	-84	.9988947	-93	-72	.9989513	-93	-61	.9990019	-92	-52	.9990473	-92	-45	7.0
7.1	-86	-81	.9989918	-86	-68	.9990455	-85	-58	.9990934	-84	-50	.9991363	-83	-43	7.1
7.2	-78	-78	.9990803	-78	-68	.9991312	-77	-66	.9991765	-77	-46	.9992170	-75	-41	7.2
7.3	-72	-74	.9991610	-71	-63	.9992091	-70	-53	.9992519	-69	-46	.9992902	-68	-39	7.3
7.4	-66	-71	.9992346	-65	-60	.9992801	-64	-51	.9993204	-63	-43	.9993565	-62	-37	7.4
7.5	-60	-68	.9993018	-59	-58	.9993447	-58	-48	.9993827	-57	-41	.9994166	-56	-38	7.5
7.6	-55	-66	.9993630	-54	-55	.9994034	-52	-46	.9994392	-52	-39	.9994711	-51	-34	7.6
7.7	-50	-63	.9994189	-49	-53	.9994569	-48	-44	.9994906	-47	-37	.9995205	-46	-32	7.7
7.8	-48	-60	.9994698	-45	-60	.9995056	-44	-42	.9995372	-43	-35	.9995653	-42	-30	7.8
7.9	-42	-57	.9995163	-41	-48	.9995499	-40	-40	.9995796	-39	-34	.9996059	-38	-29	7.9
8.0	-38	-54	.9995587	-38	-48	.9995902	-38	-38	.9996181	-38	-35	.9996427	-34	-27	8.0
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8.3	-29	-47	.9996647	-28	-39	.9996908	-27	-32	.9997136	-27	-27	.9997337	-26	-23	8.3
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8.5	-24	-43	.9997208	-28	-35	.9997437	-23	-29	.9997636	-22	-25	.9997811	-21	-21	8.5
8.6	-22	-40	.9997453	-21	-34	.9997666	-21	-28	.9997852	-20	-23	.9998015	-19	-19	8.6
8.7	-20	-38	.9997675	-19	-32	.9997875	-19	-28	.9998049	-18	-22	.9998201	-17	-18	8.7
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9.5	-10	-24	.9998881	-9	-20	.9998996	-9	-16	.9999094	-8	-13	.9999178	-8	-11	9.5
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10.6	-4	-13	.9999590	-11	-11	.9999641	-8	-8	.9999684	-7	-7	.9999720	-5	-4	10.6
10.7	-12	-12	.9999626	-10	-10	.9999673	-8	-8	.9999713	-6	-6	.9999746	-5	-4	10.7
10.8	-12	-12	.9999658	-10	-10	.9999702	-7	-7	.9999739	-6	-6	.9999770	-5	-4	10.8
10.9	-11	-11	.9999688	-9	-9	.9999729	-7	-7	.9999763	-0	-0	.9999791	-5	-4	10.9
11.0	-10	-10	.9999715	-8	-8	.9999753	-6	-6	.9999784	-5	-5	.9999811	-4	-4	11.0
11.1	-10	-10	.9999740	-8	-8	.9999775	-8	-8	.9999804	-6	-6	.9999828	-4	-4	11.1
11.2	-9	-9	.9999763	-7	-7	.9999795	-6	-6	.9999822	-4	-4	.9999844	-4	-4	11.2
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11.5	-8	-8	.9999820	-6	-6	.9999845	-4	-4	.9999866	-4	-4	.9999884	-4	-4	11.5
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11.7	-7	-7	.9999850	-5	-5	.9999872	-4	-4	.9999890	-4	-4	.9999905	-4	-4	11.7
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11.9	-8	-8	.9999875	-6	-6	.9999893	-4	-4	.9999909	-4	-4	.9999922	-4	-4	11.9
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$u$	$p = -0.50$			$p = -0.45$			$p = -0.40$			$p = -0.35$			$p = -0.30$			$p = -0.25$	
	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$u$
12.0	.9999620		-25 -4	.9999698		-19	.9999757		-13	.9999801		-10	.9999836		-7	.9999864	12.0
12.1	.9999648		-26 -4	.9999721		-18	.9999776		-13	.9999817		-10	.9999850		-7	.9999875	12.1
12.2	.9999673		-25 -4	.9999742		-17	.9999793		-12	.9999832		-9	.9999862		-7	.9999886	12.2
12.3	.9999696		-24 -4	.9999761		-16	.9999809		-12	.9999845		-9	.9999873		-6	.9999895	12.3
12.4	.9999718		-22 -4	.9999779		-15	.9999824		-11	.9999858		-8	.9999884		-6	.9999904	12.4
12.5	.9999738		-21 -4	.9999795		-14	.9999837		-10	.9999869		-8	.9999893		-5	.9999912	12.5
12.6	.9999757		-20	.9999810		-14	.9999850		-10	.9999880		-7	.9999902		-5	.9999920	12.6
12.7	.9999774		-19	.9999825		-13	.9999861		-9	.9999889		-7	.9999910		-5	.9999927	12.7
12.8	.9999791		-18	.9999838		-12	.9999872		-9	.9999898		-6	.9999918		-4	.9999933	12.8
12.9	.9999806		-17	.9999850		-12	.9999882		-8	.9999906		-6	.9999924		-4	.9999938	12.9
13.0	.9999819		-16	.9999861		-11	.9999891		-8	.9999914		-6	.9999931		-4	.9999944	13.0
13.1	.9999832		-15	.9999871		-11	.9999900		-7	.9999920		-5	.9999936		-4	.9999948	13.1
13.2	.9999844		-15	.9999881		-10	.9999907		-7	.9999927		-5	.9999942			.9999953	13.2
13.3	.9999856		-14	.9999890		-10	.9999914		-7	.9999933		-5	.9999946			.9999957	13.3
13.4	.9999866		-13	.9999898		-9	.9999921		-6	.9999938		-4	.9999951			.9999960	13.4
13.5	.9999875		-13	.9999905		-9	.9999927		-8	.9999943		-4	.9999955			.9999964	13.5
13.6	.9999884		-12	.9999912		-8	.9999933		-5	.9999948		-4	.9999959			.9999967	13.6
13.7	.9999893		-12	.9999919		-8	.9999938		-5	.9999952		-4	.9999962			.9999970	13.7
13.8	.9999900		-11	.9999925		-7	.9999943		-5	.9999956			.9999965			.9999972	13.8
13.9	.9999907		-10	.9999931		-7	.9999947		-5	.9999959			.9999968			.9999975	13.9
14.0	.9999914		-10	.9999936		-6	.9999951		-4	.9999962			.9999971			.9999977	14.0
14.1	.9999920		-9	.9999940		-6	.9999955		-4	.9999965			.9999973			.9999979	14.1
14.2	.9999926		-9	.9999945		-6	.9999958		-4	.9999968			.9999975			.9999980	14.2
14.3	.9999931		-8	.9999949		-5	.9999962		-4	.9999971			.9999977			.9999982	14.3
14.4	.9999936		-8	.9999953		-5	.9999965		-4	.9999973			.9999979			.9999984	14.4
14.5	.9999941		-7	.9999956		-5	.9999967			.9999975			.9999981			.9999985	14.5
14.6	.9999945		-7	.9999960		-4	.9999970			.9999977			.9999982			.9999986	14.6
14.7	.9999949		-7	.9999963		-4	.9999972			.9999979			.9999984			.9999987	14.7
14.8	.9999952		-6	.9999965		-4	.9999974			.9999981			.9999985			.9999988	14.8
14.9	.9999956		-6	.9999968		-4	.9999976			.9999982			.9999986			.9999989	14.9
15.0	.9999959		-6	.9999970			.9999978			.9999984			.9999988			.9999990	15.0
15.1	.9999962		-5	.9999972			.9999980			.9999985			.9999989			.9999991	15.1
15.2	.9999965		-5	.9999974			.9999981			.9999986			.9999989			.9999992	15.2
15.3	.9999967		-5	.9999976			.9999983			.9999987			.9999990			.9999993	15.3
15.4	.9999969		-5	.9999978			.9999984			.9999988			.9999991			.9999993	15.4
15.5	.9999972		-4	.9999980			.9999985			.9999989			.9999992			.9999994	15.5
15.6	.9999974		-4	.9999981			.9999986			.9999990			.9999993			.9999994	15.6
15.7	.9999975		-4	.9999983			.9999987			.9999991			.9999993			.9999995	15.7
15.8	.9999977		-4	.9999984			.9999988			.9999992			.9999994			.9999995	15.8
15.9	.9999979			.9999985			.9999989			.9999992			.9999994			.9999996	15.9
16.0	.9999980			.9999986			.9999990			.9999993			.9999995			.9999996	16.0
16.1	.9999982			.9999987			.9999991			.9999993			.9999995			.9999996	16.1
16.2	.9999983			.9999988			.9999992			.9999994			.9999996			.9999997	16.2
16.3	.9999984			.9999989			.9999992			.9999994			.9999996			.9999997	16.3
16.4	.9999985			.9999990			.9999993			.9999995			.9999996			.9999997	16.4
16.5	.9999986			.9999991			.9999993			.9999995			.9999997			.9999997	16.5
16.6	.9999987			.9999991			.9999994			.9999996			.9999997			.9999998	16.6
16.7	.9999988			.9999992			.9999994			.9999996			.9999997			.9999998	16.7
16.8	.9999989			.9999993			.9999995			.9999996			.9999997			.9999998	16.8
16.9	.9999990			.9999993			.9999995			.9999997			.9999998			.9999998	16.9
17.0	.9999991			.9999994			.9999996			.9999997			.9999998			.9999998	17.0
17.1	.9999991			.9999994			.9999996			.9999997			.9999998			.9999998	17.1
17.2	.9999992			.9999994			.9999996			.9999997			.9999998			.9999999	17.2
17.3	.9999992			.9999995			.9999997			.9999998			.9999998			.9999999	17.3
17.4	.9999993			.9999995			.9999997			.9999998			.9999998			.9999999	17.4
17.5	.9999993			.9999996			.9999997			.9999998			.9999999			.9999999	17.5
17.6	.9999994			.9999996			.9999997			.9999998			.9999999			.9999999	17.6
17.7	.9999994			.9999996			.9999997			.9999998			.9999999			.9999999	17.7
17.8	.9999995			.9999997			.9999998			.9999998			.9999999			.9999999	17.8
17.9	.9999995			.9999997			.9999998			.9999999			.9999999			.9999999	17.9
18.0	.9999995			.9999997			.9999998			.9999999			.9999999			.9999999	18.0

$u$	$p = -0.25$		$p = -0.20$		$p = -0.15$		$p = -0.10$		$p = -0.05$		$p = 0.0$		$u$		
	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$I(u, p)$		$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$
12.0		-5	.9999886		-4	.9999903		-4	.9999917		-4	.9999929		-4	12.0
12.1		-5	.9999896		-4	.9999912		-4	.9999925		-4	.9999936		-4	12.1
12.2		-5	.9999905		-4	.9999919		-4	.9999932		-4	.9999942		-4	12.2
12.3		-4	.9999913		-4	.9999927		-4	.9999938		-4	.9999947		-4	12.3
12.4		-4	.9999921		-4	.9999933		-4	.9999944		-4	.9999952		-4	12.4
12.5		-4	.9999927		-4	.9999939		-4	.9999949		-4	.9999956		-4	12.5
12.6		-4	.9999934		-4	.9999945		-4	.9999953		-4	.9999960		-4	12.6
12.7			.9999940			.9999950			.9999958			.9999964			12.7
12.8			.9999945			.9999954			.9999962			.9999968			12.8
12.9			.9999950			.9999958			.9999965			.9999971			12.9
13.0			.9999954			.9999962			.9999968			.9999973			13.0
13.1			.9999958			.9999965			.9999971			.9999976			13.1
13.2			.9999962			.9999968			.9999974			.9999978			13.2
13.3			.9999965			.9999971			.9999976			.9999980			13.3
13.4			.9999968			.9999974			.9999978			.9999982			13.4
13.5			.9999971			.9999976			.9999980			.9999984			13.5
13.6			.9999973			.9999978			.9999982			.9999985			13.6
13.7			.9999976			.9999980			.9999984			.9999987			13.7
13.8			.9999978			.9999982			.9999985			.9999988			13.8
13.9			.9999980			.9999984			.9999987			.9999989			13.9
14.0			.9999982			.9999985			.9999988			.9999990			14.0
14.1			.9999983			.9999986			.9999989			.9999991			14.1
14.2			.9999985			.9999988			.9999990			.9999992			14.2
14.3			.9999986			.9999989			.9999991			.9999993			14.3
14.4			.9999987			.9999990			.9999992			.9999993			14.4
14.5			.9999988			.9999991			.9999992			.9999994			14.5
14.6			.9999989			.9999991			.9999993			.9999994			14.6
14.7			.9999990			.9999992			.9999994			.9999995			14.7
14.8			.9999991			.9999993			.9999994			.9999995			14.8
14.9			.9999992			.9999994			.9999995			.9999996			14.9
15.0			.9999993			.9999994			.9999995			.9999996			15.0
15.1			.9999993			.9999995			.9999996			.9999997			15.1
15.2			.9999994			.9999995			.9999996			.9999997			15.2
15.3			.9999994			.9999996			.9999997			.9999997			15.3
15.4			.9999995			.9999996			.9999997			.9999997			15.4
15.5			.9999995			.9999996			.9999997			.9999998			15.5
15.6			.9999996			.9999997			.9999997			.9999998			15.6
15.7			.9999996			.9999997			.9999998			.9999998			15.7
15.8			.9999997			.9999997			.9999998			.9999998			15.8
15.9			.9999997			.9999997			.9999998			.9999998			15.9
16.0			.9999997			.9999998			.9999998			.9999999			16.0
16.1			.9999997			.9999998			.9999998			.9999999			16.1
16.2			.9999998			.9999998			.9999998			.9999999			16.2
16.3			.9999998			.9999998			.9999999			.9999999			16.3
16.4			.9999998			.9999998			.9999999			.9999999			16.4
16.5			.9999998			.9999999			.9999999			.9999999			16.5
16.6			.9999998			.9999999			.9999999			.9999999			16.6
16.7			.9999999			.9999999			.9999999			.9999999			16.7
16.8			.9999999			.9999999			.9999999			.9999999			16.8
16.9			.9999999			.9999999			.9999999			.9999999			16.9
17.0			.9999999			.9999999			.9999999			.9999999			17.0
17.1			.9999999			.9999999			.9999999			.9999999			17.1
17.2			.9999999			.9999999			.9999999			.9999999			17.2
17.3			.9999999			.9999999			.9999999			.9999999			17.3
17.4			.9999999			.9999999			.9999999			.9999999			17.4
17.5			.9999999			.9999999			.9999999			.9999999			17.5
17.6			.9999999			.9999999			.9999999			.9999999			17.6
17.7			.9999999			.9999999			.9999999			.9999999			17.7
17.8			.9999999			.9999999			.9999999			.9999999			17.8
17.9			1.0000000			1.0000000			1.0000000			1.0000000			17.9



TABLE III  
AUXILIARY TABLE  
VALUES OF THE FUNCTION  $\text{LOG } I'(u, p)$   
FOR  $u = 0.0$  TO  $1.5$  AND  $p = -1.0$  TO  $10.0$   
 $I'(u, p) = I(u, p)/u^{p+1}$

p	u = 0.0			u = 0.1			u = 0.2			p
	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	
-1.00	.00000000	0	0	.00000000	0	0	.00000000	0	0	-1.00
- .95	I-.97913639	+489	+1388635	I-.97867635	+474	+1390662	I-.97822105	+468	+1276401	- .95
- .90	I-.97165933	+1709	+412388	I-.97041932	+1681	+896709	I-.96919611	+1638	+381502	- .90
- .85	I-.96830615	+3437	+738332	I-.96612929	+3375	+726408	I-.96398619	+3314	+710248	- .85
- .80	I-.96718050	+5484	+103539	I-.96397070	+5382	+190888	I-.96081473	+5282	+203548	- .80
- .75	I-.96742142	+7721	+136657	I-.96311684	+7579	+180478	I-.95888805	+7438	+124478	- .75
- .70	I-.96854791	+10008	+18142	I-.96310852	+9876	+5744	I-.95776788	+9697	+85643	- .70
- .65	I-.97026039	+12422	+8599	I-.96366095	+12210	+56075	I-.95718360	+11998	+61838	- .65
- .60	I-.97235923	+14772	+3886	I-.96458492	+14535	+37154	I-.95695597	+14206	+53685	- .60
- .55	I-.97470511	+17073	+24704	I-.96574866	+16918	+23977	I-.95696040	+16560	+28206	- .55
- .50	I-.97719756	+19301	+8886	I-.96705721	+19038	+3681	I-.95710725	+18788	+8495	- .50
- .45	I-.97976230	+21443	+14667	I-.96844039	+21178	+14481	I-.95733025	+21904	+14242	- .45
- .40	I-.98234336	+23488	+2619	I-.96984526	+23299	+2478	I-.95757946	+22877	+2337	- .40
- .35	I-.98489797	+25432	+1831	I-.97123136	+25188	+1724	I-.95781660	+24223	+1833	- .35
- .30	I-.98739307	+27270	+1632	I-.97256731	+27043	+2109	I-.95801197	+26797	+1633	- .30
- .25	I-.98980291	+29005	+1320	I-.97382862	+28802	+1248	I-.95814234	+26777	+1380	- .25
- .20	I-.99210733	+30636	+971	I-.97499603	+30453	+908	I-.95818936	+30254	+979	- .20
- .15	I-.99429045	+32188	+621	I-.97605433	+32027	+568	I-.95813848	+31860	+625	- .15
- .10	I-.99633979	+33559	+271	I-.97699147	+33498	+228	I-.95797814	+33855	+271	- .10
- .05	I-.99824553	+34839	+121	I-.97779794	+34877	+88	I-.95769913	+34877	+121	- .05
.00	.00000000	+36188	-18725	I-.97846622	+36170	-14411	I-.95729413	+36118	-18180	.00
.0	.00000000	+36188	-139	I-.97846622	+36170	-131	I-.95729413	+36118	-128	.0
.1	.00303262	+38435	-62760	I-.97936585	+38609	-5711	I-.95608418	+38543	-62596	.1
.2	.00540500	+40370	-2271	I-.97965743	+40540	-2146	I-.95431531	+40872	-2022	.2
.3	.00709955	+42040	-68024	I-.97932226	+42009	-808	I-.95196805	+42532	-8681	.3
.4	.00810882	+43461	-1605	I-.97835136	+43829	-457	I-.94903219	+44149	-1348	.4
.5	.00843224	+44687	-68528	I-.97674239	+45181	-83584	I-.94550384	+45548	-89192	.5
.6	.00807399	+45682	-40	I-.97449759	+48239	-317	I-.94138358	+46732	-88823	.6
.7	.00704142	+46929	-67431	I-.97162235	+47177	-63043	I-.93667506	+47781	-68239	.7
.8	.00534408	+47228	-41	I-.96812430	+47963	-149	I-.93138414	+48856	-67592	.8
.9	.00299298	+47797	-60377	I-.96401253	+48613	-61872	I-.92551822	+49300	-66684	.9
1.0	.00000000	+48252	-84187	I-.95929710	+49145	-60860	I-.91908565	+50001	-65758	1.0
1.1	I-.99637761	+49008	-35	I-.95398872	+49571	-59296	I-.91209554	+50503	-64894	1.1
1.2	I-.99213852	+48972	-38	I-.94809843	+49904	-58194	I-.90455738	+50906	-63829	1.2
1.3	I-.98729555	+49060	-6	I-.94163746	+50154	-57068	I-.89648092	+51222	-62844	1.3
1.4	I-.98186144	+49179	-30	I-.93461708	+50332	-56000	I-.88787603	+51461	-61669	1.4
1.5	I-.97584880	+49239	-14	I-.92704846	+50444	-54924	I-.87875255	+51630	-59880	1.5
1.6	I-.96927000	+49245	-27	I-.91894264	+50499	-53836	I-.86912026	+51791	-58915	1.6
1.7	I-.96213715	+49205	-40	I-.91031047	+50504	-52836	I-.85898883	+51929	-48966	1.7
1.8	I-.95446204	+49124	-28	I-.90116257	+50464	-51873	I-.84836775	+51797	-48036	1.8
1.9	I-.94625615	+49097	-11	I-.89150931	+50383	-50937	I-.83726631	+51759	-47126	1.9
2.0	I-.93753063	+48859	-29	I-.88136077	+50270	-49225	I-.82569361	+51639	-46240	2.0
2.1	I-.92829628	+48683	-40	I-.87072676	+50126	-48546	I-.81365850	+51672	-45377	2.1
2.2	I-.91856356	+48483	-29	I-.85961683	+49954	-47695	I-.80116963	+51432	-44537	2.2
2.3	I-.90834260	+48263	-16	I-.84804021	+49758	-46968	I-.78823540	+51264	-43720	2.3
2.4	I-.89764319	+48024	-3	I-.83600587	+49541	-46283	I-.77486396	+51073	-42927	2.4
2.5	I-.88647482	+47789	-22	I-.82352251	+49307	-45546	I-.76106325	+50892	-42167	2.5
2.6	I-.87484665	+47601	-11	I-.81059853	+49058	-44811	I-.74684097	+50631	-41409	2.6
2.7	I-.86276753	+47221	-2	I-.79724211	+48792	-44076	I-.73220461	+50355	-40654	2.7
2.8	I-.85024603	+46931	+9	I-.78346114	+48518	-43341	I-.71716139	+50125	-39980	2.8
2.9	I-.83729043	+46653	+21	I-.76926327	+48225	-42606	I-.70171838	+49822	-39297	2.9
3.0	I-.82390874	+46328	+33	I-.75465591	+47932	-41871	I-.68588240	+49569	-38634	3.0
3.1	I-.81010870	+46016	+45	I-.73964624	+47629	-41136	I-.66966008	+49278	-37991	3.1
3.2	I-.79589781	+45700	+57	I-.72424123	+47319	-40401	I-.65305784	+48975	-37367	3.2
3.3	I-.78128332	+45380	+69	I-.70844760	+47005	-39666	I-.63608193	+48667	-36761	3.3
3.4	I-.76627225	+45058	+81	I-.69227190	+46685	-38931	I-.61873841	+48354	-36173	3.4
3.5	I-.75087139	+44731	+93	I-.67572046	+46362	-38196	I-.60103315	+48038	-35602	3.5
3.6	I-.73508733	+44404	+105	I-.65879942	+46037	-37461	I-.58297188	+47714	-35047	3.6
3.7	I-.71892645	+44075	+117	I-.64151475	+45710	-36726	I-.56456014	+47389	-34505	3.7
3.8	I-.70239493	+43746	+129	I-.62387222	+45381	-35991	I-.54580331	+47062	-33985	3.8
3.9	I-.68549877	+43418	+141	I-.60587745	+45051	-35256	I-.52670664	+46734	-33476	3.9
4.0	I-.66824376	+43089	+153	I-.58753589	+44729	-34521	I-.50727521	+46401	-32981	4.0



p	u = 0.3				u = 0.4				u = 0.5				p
	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_p^4$	
		$\delta_u^4$	$\delta_p^4$			$\delta_u^4$	$\delta_p^4$			$\delta_u^4$	$\delta_p^4$		
-1.00	.00000000	0	0	0	.00000000	0	0	0	.00000000	0	0	0	-1.00
-.95	I-.97777042	+482	+1244800	0	I-.97732441	+465	+1215021	0	I-.97688296	+450	+1185868	0	-.95
-.90	I-.96798944	+1628	+3667776	0	I-.96679903	+1599	+352513	0	I-.96562460	+1572	+338704	0	-.90
-.85	I-.96187622	+3263	+957390	0	I-.95979878	+3194	+186172	0	I-.95775328	+3138	+177780	0	-.85
-.80	I-.95771158	+5138	+118870	+1	I-.95466025	+5085	+113630	+1	I-.95165976	+4988	+107600	+1	-.80
-.75	I-.95473364	+7290	+76853	+1	I-.95065222	+7169	+78137	+1	I-.94664240	+7024	+69558	+1	-.75
-.70	I-.95252423	+9519	+16106	+1	I-.94737576	+9349	+10480	+1	I-.94232072	+9166	+14874	+1	-.70
-.65	I-.95082624	+11851	+51142	+1	I-.94458674	+11674	+32882	+1	I-.93846298	+11362	+7981	+1	-.65
-.60	I-.94946998	+14206	+34173	+1	I-.94212454	+13814	+4933	+1	I-.93491725	+13571	+32101	+1	-.60
-.55	I-.94833774	+16998	+22402	+1	I-.93987807	+16033	+21573	+1	I-.93157872	+15765	+4712	+1	-.55
-.50	I-.94734496	+18491	+18946	+1	I-.93776758	+18219	+18598	+1	I-.92837230	+17923	+20720	+1	-.50
-.45	I-.94642916	+19820	+15357	+1	I-.93573426	+20323	+7717	+1	I-.92524265	+20030	+13631	+1	-.45
-.40	I-.94554323	+22674	+2987	+1	I-.93373374	+22379	+4344	+1	I-.92214804	+22075	+3504	+1	-.40
-.35	I-.94465107	+24946	-8	+1	I-.93173200	+24353	-7	+1	I-.91905648	+24579	-974	+1	-.35
-.30	I-.94372461	+26532	-623	+1	I-.92970257	+26231	-12	+1	I-.91594303	+24583	-305	+1	-.30
-.25	I-.94274184	+28331	-806	+1	I-.92762463	+28064	-13	+1	I-.91278809	+24519	-419	+1	-.25
-.20	I-.94168533	+30041	-1043	+1	I-.92548171	+29795	-15	+1	I-.90957605	+24488	-399	+1	-.20
-.15	I-.94054122	+31684	-1272	+1	I-.92326061	+31433	-17	+1	I-.90629443	+24400	-354	+1	-.15
-.10	I-.93929845	+33291	-1498	+1	I-.92095077	+33008	-19	+1	I-.90293318	+24278	-288	+1	-.10
-.05	I-.93794815	+34854	-1714	+1	I-.91854370	+34494	-21	+1	I-.89948420	+24131	-219	+1	-.05
.00	I-.93648321	+36026	-1920	+1	I-.91603255	+35901	-22	+1	I-.89594089	+23974	-159	+1	.00
.0	I-.93648321	+38026	-2118	+1	I-.91603255	+38901	-23	+1	I-.89594089	+35740	-964	+1	.0
.1	I-.93318793	+38536	-2305	+1	I-.91067704	+38489	-24	+1	I-.88855105	+35740	-313	+1	.1
.2	I-.92937991	+40756	-2487	+1	I-.90485207	+40795	-25	+1	I-.88073218	+35685	-168	+1	.2
.3	I-.92503917	+42710	-2663	+1	I-.89853740	+42841	-26	+1	I-.87246402	+42923	-102	+1	.3
.4	I-.92015451	+44423	-2833	+1	I-.89172107	+44643	-27	+1	I-.86373410	+44822	-45	+1	.4
.5	I-.91472078	+46918	-2998	+1	I-.88439690	+46233	-28	+1	I-.85453539	+46505	+3	+1	.5
.6	I-.90873509	+47917	-3157	+1	I-.87656277	+47831	-29	+1	I-.84486475	+47992	+281	+1	.6
.7	I-.90220557	+48939	-3310	+1	I-.86821948	+49486	-30	+1	I-.83472184	+49030	+55	+1	.7
.8	I-.89513054	+49929	-3457	+1	I-.85936995	+50900	-31	+1	I-.82410837	+50445	+148	+1	.8
.9	I-.88751780	+50123	-3600	+1	I-.85001862	+52089	-32	+1	I-.81302752	+51444	+256	+1	.9
1.0	I-.87937422	+50817	-3738	+1	I-.84017094	+51397	-33	+1	I-.80148354	+52308	+369	+1	1.0
1.1	I-.87070738	+51898	-3871	+1	I-.82983319	+52247	-34	+1	I-.78948147	+53051	+481	+1	1.1
1.2	I-.86152539	+51973	-4000	+1	I-.81901213	+52911	-35	+1	I-.77702689	+53885	+593	+1	1.2
1.3	I-.85183661	+52259	-4124	+1	I-.80771488	+53569	-36	+1	I-.76412575	+54219	+706	+1	1.3
1.4	I-.84164959	+52863	-4243	+1	I-.79594878	+54532	-37	+1	I-.75078429	+54863	+819	+1	1.4
1.5	I-.83097294	+53703	-4357	+1	I-.78372127	+55927	-38	+1	I-.73700888	+55928	+933	+1	1.5
1.6	I-.81981527	+54298	-4466	+1	I-.77103987	+56152	-39	+1	I-.72280599	+56315	+1046	+1	1.6
1.7	I-.80818511	+54605	-4571	+1	I-.75791204	+56416	-40	+1	I-.70818212	+56538	+1159	+1	1.7
1.8	I-.79609089	+54118	-4672	+1	I-.74434522	+56422	-41	+1	I-.69314377	+56701	+1272	+1	1.8
1.9	I-.78354090	+53125	-4769	+1	I-.73034675	+56478	-42	+1	I-.67769737	+56810	+1385	+1	1.9
2.0	I-.77054327	+53090	-4862	+1	I-.71592384	+54488	-43	+1	I-.66184929	+56889	+1498	+1	2.0
2.1	I-.75710597	+53018	-4951	+1	I-.70108361	+54457	-44	+1	I-.64560583	+56885	+1611	+1	2.1
2.2	I-.74323676	+52912	-5036	+1	I-.68583300	+54399	-45	+1	I-.62897315	+56856	+1724	+1	2.2
2.3	I-.72894323	+52777	-5117	+1	I-.67017883	+54291	-46	+1	I-.61195734	+56800	+1837	+1	2.3
2.4	I-.71423278	+52615	-5194	+1	I-.65412776	+54181	-47	+1	I-.59456434	+56767	+1950	+1	2.4
2.5	I-.69911262	+52429	-5267	+1	I-.63768627	+54065	-48	+1	I-.57679998	+56684	+2063	+1	2.5
2.6	I-.68358973	+52223	-5336	+1	I-.62086072	+53928	-49	+1	I-.55866996	+56536	+2176	+1	2.6
2.7	I-.66767095	+51998	-5400	+1	I-.60365728	+53765	-50	+1	I-.54017986	+56364	+2289	+1	2.7
2.8	I-.65136289	+51757	-5459	+1	I-.58608196	+53567	-51	+1	I-.52133510	+56179	+2402	+1	2.8
2.9	I-.63467202	+51501	-5513	+1	I-.56814066	+53372	-52	+1	I-.50214102	+56000	+2515	+1	2.9
3.0	I-.61760458	+51233	-5563	+1	I-.54983908	+53221	-53	+1	I-.48260279	+55828	+2628	+1	3.0
3.1	I-.60016667	+50963	-5608	+1	I-.53118279	+53037	-54	+1	I-.46272548	+55658	+2741	+1	3.1
3.2	I-.58236420	+50684	-5648	+1	I-.51217720	+52822	-55	+1	I-.44251402	+55488	+2854	+1	3.2
3.3	I-.56420293	+50398	-5683	+1	I-.49282760	+52597	-56	+1	I-.42197323	+55318	+2967	+1	3.3
3.4	I-.54568846	+50091	-5713	+1	I-.47313912	+52381	-57	+1	I-.40110781	+55148	+3080	+1	3.4
3.5	I-.52682621	+49765	-5738	+1	I-.45311677	+52165	-58	+1	I-.37992234	+54978	+3193	+1	3.5
3.6	I-.50762148	+49434	-5758	+1	I-.43276543	+51929	-59	+1	I-.35842129	+54808	+3306	+1	3.6
3.7	I-.48807942	+49113	-5773	+1	I-.41208983	+51673	-60	+1	I-.33660903	+54638	+3419	+1	3.7
3.8	I-.46820502	+48799	-5783	+1	I-.39109462	+51489	-61	+1	I-.31448980	+54468	+3532	+1	3.8
3.9	I-.44800315	+48461	-5788	+1	I-.36978428	+51273	-62	+1	I-.29206775	+54298	+3645	+1	3.9
4.0	I-.42747855	+48132	-5788	+1	I-.34816321	+51029	-63	+1	I-.26934695	+54128	+3758	+1	4.0

$p$	$u = 0.0$			$u = 0.1$			$u = 0.2$			$p$
	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$\log I'(u, \bar{p})$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	
4.0	I-66824376	+43089 +61	-35319 -17	I-58753589	+44720 +50	-34150 -15	I-50727521	+46401 +49	-32951 -13	4.0
4.1	I-65063557	+42761 +53	-34772 -16	I-56885282	+44390 +62	-33636 -13	I-48751397	+46070 +60	-32500 -13	4.1
4.2	I-63267965	+42435 +54	-34241 -16	I-54983339	+44060 +59	-33157 -14	I-46742774	+45738 +61	-32032 -13	4.2
4.3	I-61438132	+42109 +55	-33726 -16	I-53048260	+43731 +54	-32653 -13	I-44702119	+45406 +58	-31676 -13	4.3
4.4	I-59574575	+41786 +66	-33223 -14	I-51080530	+43403 +66	-32179 -13	I-42629888	+45075 +64	-31188 -12	4.4
4.5	I-57677794	+41464 +66	-32786 -13	I-49080621	+43076 +66	-31720 -12	I-40526524	+44744 +65	-30791 -11	4.5
4.6	I-55748277	+41144 +66	-32263 -13	I-47048993	+42761 +57	-31272 -12	I-38392459	+44414 +66	-30261 -11	4.6
4.7	I-53786497	+40827 +66	-31692 -12	I-44986092	+42427 +56	-30838 -11	I-36228114	+44086 +67	-29871 -10	4.7
4.8	I-51792915	+40512 +66	-31354 -12	I-42892353	+42106 +60	-30414 -11	I-34033896	+43759 +68	-29473 -10	4.8
4.9	I-49767979	+40200 +66	-30918 -12	I-40768199	+41787 +60	-30002 -11	I-31810206	+43434 +69	-29084 -10	4.9
5.0	I-47712125	+39890 +56	-30494 -11	I-38614044	+41470 +61	-29600 -10	I-29557432	+43110 +60	-28705 -9	5.0
5.1	I-45625778	+39583 +57	-30080 -11	I-36430288	+41165 +61	-29209 -10	I-27275953	+42799 +61	-28336 -9	5.1
5.2	I-43509351	+39278 +68	-29678 -10	I-34217323	+40845 +62	-28828 -9	I-24966138	+42470 +62	-27978 -9	5.2
5.3	I-41363245	+38977 +69	-29286 -9	I-31975530	+40534 +82	-28456 -9	I-22628349	+42153 +82	-27623 -8	5.3
5.4	I-39187854	+38678 +60	-28903 -9	I-29705281	+40227 +62	-28083 -9	I-20262936	+41839 +63	-27280 -8	5.4
5.5	I-36983560	+38382 +61	-28531 -9	I-27406940	+39924 +62	-27759 -9	I-17870243	+41527 +84	-26945 -8	5.5
5.6	I-34750734	+38089 +62	-28187 -9	I-25080858	+39622 +62	-27394 -8	I-15450605	+41218 +84	-26618 -8	5.6
5.7	I-32489742	+37800 +62	-27813 -9	I-22727383	+39324 +63	-27057 -8	I-13004349	+40912 +64	-26298 -7	5.7
5.8	I-30200936	+37514 +62	-27467 -8	I-20346851	+39029 +63	-26728 -8	I-10531795	+40608 +64	-25986 -7	5.8
5.9	I-27884663	+37230 +62	-27130 -9	I-17939590	+38737 +63	-26407 -7	I-08033254	+40307 +65	-25681 -7	5.9
6.0	I-25541260	+36950 +62	-26800 -8	I-15505922	+38448 +64	-26093 -7	I-05509032	+40010 +86	-25383 -7	6.0
6.1	I-23171057	+36673 +62	-26479 -7	I-13046161	+38161 +64	-25767 -6	I-02959426	+39714 +86	-25092 -6	6.1
6.2	I-20774376	+36400 +62	-26164 -7	I-10560613	+37879 +64	-25467 -7	I-00384728	+39422 +66	-24807 -6	6.2
6.3	I-18351530	+36129 +62	-25857 -7	I-08049577	+37599 +64	-25194 -7	I-97785223	+39138 +66	-24526 -6	6.3
6.4	I-15902827	+35861 +62	-25567 -7	I-05513347	+37322 +64	-24908 -6	I-95161190	+38847 +66	-24268 -6	6.4
6.5	I-13428566	+35597 +62	-25284 -7	I-02952209	+37048 +64	-24628 -6	I-92512900	+38564 +66	-23989 -6	6.5
6.6	I-10929042	+35335 +62	-24977 -7	I-00366443	+36777 +64	-24354 -6	I-89840621	+38282 +66	-23728 -6	6.6
6.7	I-08404540	+35077 +62	-24697 -6	I-97756322	+36509 +64	-24087 -6	I-87144614	+38006 +66	-23473 -6	6.7
6.8	I-05855340	+34821 +62	-24423 -6	I-95122115	+36244 +64	-23824 -6	I-84425134	+37732 +66	-23223 -6	6.8
6.9	I-03281719	+34569 +62	-24154 -6	I-92464083	+35983 +64	-23568 -6	I-81682430	+37460 +66	-22973 -6	6.9
7.0	I-00683942	+34320 +62	-23892 -6	I-89782484	+35724 +64	-23316 -6	I-78916750	+37192 +66	-22738 -6	7.0
7.1	I-98062274	+34074 +61	-23635 -6	I-87077568	+35466 +64	-23070 -5	I-76128331	+36926 +67	-22503 -6	7.1
7.2	I-95416971	+33830 +61	-23382 -5	I-84349582	+35215 +64	-22829 -5	I-73317409	+36664 +66	-22273 -5	7.2
7.3	I-92748285	+33589 +61	-23137 -5	I-81598767	+34965 +64	-22603 -5	I-70484214	+36404 +66	-22047 -5	7.3
7.4	I-90056462	+33352 +61	-22896 -5	I-78825358	+34718 +64	-22362 -4	I-67628973	+36148 +66	-21826 -4	7.4
7.5	I-87341743	+33117 +61	-22659 -4	I-76029587	+34474 +63	-22135 -4	I-64751905	+35894 +66	-21609 -4	7.5
7.6	I-84604365	+32885 +61	-22425 -4	I-73211681	+34232 +63	-21913 -4	I-61853229	+35643 +66	-21396 -4	7.6
7.7	I-81844560	+32656 +61	-22200 -4	I-70371862	+33994 +63	-21696 -4	I-58933157	+35394 +66	-21188 -4	7.7
7.8	I-79062554	+32430 +60	-21978 -4	I-67510347	+33758 +63	-21482 -4	I-55991897	+35149 +66	-20983 -4	7.8
7.9	I-76258570	+32206 +60	-21760 -4	I-64627350	+33525 +62	-21272 -4	I-53029655	+34907 +66	-20782 -4	7.9
8.0	I-73432826	+31985 +60	-21546 -4	I-61723081	+33295 +62	-21067 -4	I-50046630	+34667 +65	-20585 -4	8.0
8.1	I-70585536	+31766 +60	-21336 -4	I-58797744	+33067 +62	-20865 -4	I-47043020	+34430 +65	-20392 -4	8.1
8.2	I-67716910	+31551 +60	-21130 -4	I-55851543	+32842 +62	-20668 -4	I-44019018	+34195 +65	-20202 -4	8.2
8.3	I-64827153	+31338 +60	-20929 -4	I-52884674	+32620 +62	-20473 -4	I-40974814	+33964 +64	-20016 -4	8.3
8.4	I-61916468	+31127 +59	-20730 -4	I-49897331	+32400 +61	-20288 -4	I-37910594	+33735 +64	-19833 -4	8.4
8.5	I-58985052	+30919 +59	-20536 -4	I-46889705	+32183 +61	-20098 -4	I-34826542	+33508 +64	-19653 -4	8.5
8.6	I-56033100	+30713 +58	-20346 -4	I-43861984	+31969 +61	-19912 -4	I-31722836	+33284 +64	-19477 -4	8.6
8.7	I-53060803	+30510 +58	-20156 -4	I-40814350	+31757 +61	-19732 -4	I-28599654	+33063 +64	-19308 -4	8.7
8.8	I-50068348	+30309 +58	-19974 -4	I-37746985	+31547 +60	-19555 -4	I-25457169	+32844 +63	-19138 -4	8.8
8.9	I-47055919	+30111 +57	-19798 -4	I-34660065	+31340 +60	-19381 -4	I-22295550	+32629 +63	-18968 -4	8.9
9.0	I-44023697	+29915 +57	-19616 -4	I-31553764	+31136 +60	-19210 -4	I-19114966	+32414 +62	-18801 -4	9.0
9.1	I-40971859	+29721 +57	-19442 -4	I-28428254	+30933 +59	-19041 -4	I-15915531	+32203 +62	-18639 -4	9.1
9.2	I-37900580	+29530 +57	-19270 -4	I-25283702	+30732 +59	-18876 -4	I-12697557	+31994 +62	-18480 -4	9.2
9.3	I-34810030	+29340 +56	-19102 -4	I-22120274	+30534 +59	-18714 -4	I-09461052	+31787 +62	-18324 -4	9.3
9.4	I-31700379	+29153 +56	-18936 -4	I-18938132	+30339 +59	-18554 -4	I-06206223	+31583 +62	-18170 -4	9.4
9.5	I-28571791	+28969 +56	-18774 -4	I-15737435	+30146 +58	-18399 -4	I-02933224	+31381 +61	-18019 -4	9.5
9.6	I-25424430	+28786 +55	-18614 -4	I-12518341	+29953 +58	-18243 -4	I-99642206	+31181 +61	-17871 -4	9.6
9.7	I-22258455	+28605 +55	-18457 -4	I-09281003	+29766 +58	-18091 -4	I-96333317	+30984 +61	-17724 -4	9.7
9.8	I-19074023	+28427 +54	-18302 -4	I-06025574	+29579 +58	-17942 -4	I-93006704	+30789 +60	-17681 -4	9.8
9.9	I-15871289	+28250 +54	-18150 -4	I-02752203	+29395 +57	-17795 -4	I-89662510	+30596 +60	-17439 -4	9.9
10.0	I-12650405	+28076 +54	-18001 -4	I-99461036	+29212 +57	-17651 -4	I-86300878	+30405 +60	-17299 -4	10.0

p	u = 0.3			u = 0.4			u = 0.5			p
	log I' (u, p)	$\delta_u^2$	$\delta_p^2$	log I' (u, p)	$\delta_u^2$	$\delta_p^2$	log I' (u, p)	$\delta_u^2$	$\delta_p^2$	
4.0	I.42747855	+48132	-31619	I.34816321	+49999	-30646	I.26934695	+51780	-29481	4.0
4.1	I.40663582	+47960	-31963	I.32623568	+49579	-30223	I.24633132	+51405	-29096	4.1
4.2	I.38547946	+47467	-30926	I.30400586	+49243	-29822	I.22302474	+51076	-28719	4.2
4.3	I.36401384	+47134	-30501	I.28147783	+48914	-29420	I.19943097	+50744	-28382	4.3
4.4	I.34224321	+46801	-30066	I.25865554	+48580	-29039	I.17555367	+50411	-27993	4.4
4.5	I.32017171	+46467	-29632	I.23554286	+48245	-28662	I.15139645	+50076	-27643	4.5
4.6	I.29780340	+46134	-29255	I.21214355	+47910	-28284	I.12696279	+49740	-27300	4.6
4.7	I.27514221	+45801	-28894	I.18846130	+47574	-27935	I.10225614	+49403	-26966	4.7
4.8	I.25219198	+45470	-28529	I.16449971	+47239	-27585	I.07727982	+49065	-26639	4.8
4.9	I.22895646	+45140	-28164	I.14026226	+46906	-27243	I.05203711	+48728	-26320	4.9
5.0	I.20543930	+44811	-27807	I.11575239	+46571	-26908	I.02653120	+48391	-26008	5.0
5.1	I.18164407	+44484	-27460	I.09097344	+46239	-26582	I.00076521	+48053	-25703	5.1
5.2	I.15757424	+44158	-27120	I.06592867	+45908	-26263	I.97474219	+47719	-25404	5.2
5.3	I.13323321	+43833	-26786	I.04062127	+45579	-25961	I.94846513	+47385	-25118	5.3
5.4	I.10862429	+43513	-26464	I.01505436	+45251	-25647	I.92193694	+47052	-24827	5.4
5.5	I.08375074	+43194	-26148	I.98923099	+44925	-25340	I.89516049	+46720	-24548	5.5
5.6	I.05861570	+42875	-25839	I.96315412	+44601	-25054	I.86813856	+46390	-24274	5.6
5.7	I.03322227	+42563	-25537	I.93682668	+44280	-24773	I.84087859	+46061	-24007	5.7
5.8	I.00757347	+42252	-25242	I.91025151	+43961	-24494	I.81336915	+45733	-23745	5.8
5.9	I.98167225	+41943	-24953	I.88343139	+43643	-24223	I.78562696	+45411	-23488	5.9
6.0	I.95552151	+41636	-24671	I.85636906	+43329	-23955	I.75764990	+43088	-23237	6.0
6.1	I.92912406	+41332	-24394	I.82906718	+43017	-23694	I.72944046	+44769	-22991	6.1
6.2	I.90248266	+41031	-24124	I.80152835	+42707	-23438	I.70100112	+44450	-22750	6.2
6.3	I.87560003	+40733	-23860	I.77375515	+42400	-23188	I.67233427	+44135	-22514	6.3
6.4	I.84847879	+40436	-23601	I.74575006	+42096	-22943	I.64344229	+43822	-22282	6.4
6.5	I.82112155	+40145	-23348	I.71751555	+41794	-22703	I.61432749	+43512	-22053	6.5
6.6	I.79353083	+39856	-23109	I.68905400	+41496	-22467	I.58499213	+43204	-21833	6.6
6.7	I.76570912	+39569	-22886	I.66036778	+41200	-22237	I.55543844	+42899	-21615	6.7
6.8	I.73765884	+39285	-22671	I.63145919	+40906	-22011	I.52566861	+42597	-21401	6.8
6.9	I.70938238	+38994	-22465	I.60233050	+40616	-21790	I.49568477	+42297	-21191	6.9
7.0	I.68088207	+38726	-22157	I.57298390	+40328	-21572	I.46548902	+42000	-20985	7.0
7.1	I.65216019	+38461	-21852	I.54342159	+40044	-21359	I.43508342	+41706	-20783	7.1
7.2	I.62321899	+38199	-21551	I.51364568	+39765	-21150	I.40446998	+41415	-20585	7.2
7.3	I.59406065	+37910	-21269	I.48365826	+39483	-20946	I.37365070	+41126	-20390	7.3
7.4	I.56468734	+37643	-21026	I.45346139	+39207	-20744	I.34262751	+40840	-20199	7.4
7.5	I.53510117	+37389	-21079	I.42305708	+38933	-20547	I.31140233	+40557	-20012	7.5
7.6	I.50530420	+37119	-20876	I.39244730	+38663	-20353	I.27997703	+40277	-19823	7.6
7.7	I.47529847	+36861	-20677	I.36163398	+38395	-20163	I.24835345	+39999	-19647	7.7
7.8	I.44508597	+36606	-20481	I.33061903	+38130	-19977	I.21653340	+39724	-19469	7.8
7.9	I.41466866	+36354	-20289	I.29940432	+37865	-19793	I.18451865	+39452	-19295	7.9
8.0	I.38404846	+36104	-20101	I.26799167	+37609	-19613	I.15231096	+39183	-19123	8.0
8.1	I.35322725	+35859	-19916	I.23638288	+37362	-19437	I.11991203	+38917	-18955	8.1
8.2	I.32220689	+35614	-19734	I.20457973	+37109	-19263	I.08732356	+38653	-18789	8.2
8.3	I.29098918	+35373	-19555	I.17258395	+36847	-19092	I.05454719	+38392	-18626	8.3
8.4	I.25957593	+35134	-19380	I.14039724	+36589	-18925	I.02158455	+38134	-18467	8.4
8.5	I.22796887	+34897	-19208	I.10802129	+36333	-18760	I.98843725	+37879	-18309	8.5
8.6	I.19616973	+34664	-19038	I.07545774	+36119	-18596	I.95510686	+37625	-18153	8.6
8.7	I.16418021	+34433	-18872	I.04270822	+35870	-18430	I.92159492	+37375	-18002	8.7
8.8	I.13200197	+34206	-18709	I.00977430	+35632	-18262	I.88790296	+37127	-17853	8.8
8.9	I.09963664	+33980	-18546	I.97665757	+35397	-18128	I.85403247	+36882	-17706	8.9
9.0	I.06708582	+33757	-18390	I.94335955	+35164	-17977	I.81998492	+36639	-17561	9.0
9.1	I.03435111	+33536	-18235	I.90988177	+34934	-17828	I.78576177	+36399	-17416	9.1
9.2	I.00143405	+33318	-18082	I.87622571	+34706	-17681	I.75136444	+36162	-17276	9.2
9.3	I.96833617	+33102	-17932	I.84239285	+34481	-17537	I.71679433	+35927	-17140	9.3
9.4	I.93505898	+32886	-17784	I.80838461	+34257	-17395	I.68205282	+35695	-17004	9.4
9.5	I.90160394	+32674	-17639	I.77420242	+34038	-17256	I.64714127	+35465	-16870	9.5
9.6	I.86797252	+32469	-17496	I.73984767	+33820	-17118	I.61206103	+35237	-16733	9.6
9.7	I.83416614	+32263	-17355	I.70532175	+33604	-16983	I.57681339	+35012	-16609	9.7
9.8	I.80018622	+32059	-17216	I.67062599	+33391	-16850	I.54139967	+34790	-16481	9.8
9.9	I.76603414	+31854	-17080	I.63576174	+33180	-16719	I.50582114	+34569	-16355	9.9
10.0	I.73171126	+31657	-16946	I.60073030	+32971	-16590	I.47007906	+34351	-16231	10.0

$p$	$u = 0.5$			$u = 0.6$			$u = 0.7$			$p$
	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	
-1.00	.00000000	0	0	.00000000	0	0	.00000000	0	0	-1.00
-.95	I-97688296	+400	+1185988	I-97644601	+444	+1157386	I-97601349	+438	+1129666	-.95
-.90	I-96562460	+1572	+338704	I-96446588	+1646	+325339	I-96332263	+1520	+312402	-.90
-.85	I-95775328	+3136	+177840	I-95573914	+3078	+106076	I-95375579	+3022	+161554	-.85
-.80	I-95165976	+4988	+107816	I-94870916	+4832	+102384	I-94580749	+4790	+57298	-.80
-.75	I-94664240	+7024	+89568	I-94270282	+6887	+86086	I-93883211	+6756	+62712	-.75
-.70	I-94232072	+9166	+46384	I-93735734	+8992	+44007	I-93248387	+8818	+41838	-.70
-.65	I-93846298	+11360	+31201	I-93245283	+11161	+29736	I-92655420	+11090	+28284	-.65
-.60	I-93491725	+13571	+20720	I-92784567	+13328	+19851	I-92090737	+13084	+18974	-.60
-.55	I-93157872	+15765	+13211	I-92343702	+15495	+12788	I-91545028	+15223	+12333	-.55
-.50	I-92837230	+17923	+7677	I-91915625	+17632	+7585	I-91011652	+17338	+7450	-.50
-.45	I-92524265	+20030	+3504	I-91495133	+19724	+3668	I-90485726	+19413	+3774	-.45
-.40	I-92214804	+22075	+306	I-91078309	+21761	+661	I-89963574	+21438	+956	-.40
-.35	I-91905648	+24060	-2189	I-90662146	+23734	-1681	I-89442378	+23400	-1241	-.35
-.30	I-91594303	+26953	-4149	I-90244302	+25639	-3528	I-88919941	+25312	-2976	-.30
-.25	I-91278809	+27778	-5710	I-89822932	+27474	-4998	I-88394528	+27151	-4357	-.25
-.20	I-90957605	+29526	-6968	I-89396564	+29235	-6177	I-87864758	+28923	-6470	-.20
-.15	I-90629443	+31195	-7963	I-88964019	+30922	-7129	I-87329518	+30626	-6370	-.15
-.10	I-90293318	+32786	-8773	I-88524345	+32536	-7901	I-86787908	+32259	-7101	-.10
-.05	I-89948420	+34301	-9438	I-88076770	+34077	-8531	I-86239197	+31823	-7701	-.05
-.00	I-89594089	+35740	-9984	I-87620664	+35546	-9042	I-85682785	+31319	-8191	-.00
.0	I-89594089	+35740	-9976	I-87620664	+35546	-9075	I-85682785	+31319	-8264	.0
.1	I-88855105	+38403	-42902	I-86680908	+38276	-59133	I-84544987	+38111	-36628	.1
.2	I-88073218	+40790	-44829	I-85702019	+40741	-41142	I-83371562	+40648	-37604	.2
.3	I-87246402	+42923	-46176	I-84681988	+42958	-42422	I-82160532	+42252	-38808	.3
.4	I-86373410	+44823	-46879	I-83619535	+44945	-43188	I-80910605	+44016	-39710	.4
.5	I-85453539	+46595	-47193	I-82513894	+46719	-43587	I-79620968	+46879	-40175	.5
.6	I-84486475	+47992	-47227	I-81364666	+48299	-43717	I-78291156	+48549	-40387	.6
.7	I-83472184	+49390	-47056	I-80171721	+49700	-43851	I-76920957	+50041	-40410	.7
.8	I-82410837	+50446	-46737	I-78935124	+50966	-43441	I-75510348	+51389	-40294	.8
.9	I-81302752	+51444	-46315	I-77655086	+52024	-43126	I-74059445	+52647	-40076	.9
1.0	I-80148354	+52308	-45810	I-76331923	+52976	-42732	I-72568467	+53687	-39779	1.0
1.1	I-78948147	+53051	-45252	I-74966027	+53804	-42282	I-71037710	+54502	-39425	1.1
1.2	I-77702689	+53695	-44665	I-73557849	+54519	-41790	I-69467528	+55190	-39028	1.2
1.3	I-76412575	+54219	-44033	I-72107881	+55131	-41270	I-67858318	+55893	-38601	1.3
1.4	I-75078429	+54663	-43395	I-70616642	+55680	-40731	I-66210506	+56689	-38161	1.4
1.5	I-73700888	+55026	-42748	I-69084673	+56084	-40179	I-64524544	+57097	-37687	1.5
1.6	I-72280599	+55316	-42098	I-67512526	+56441	-39620	I-62800894	+57524	-37212	1.6
1.7	I-70818212	+55587	-41449	I-65900758	+56728	-39069	I-61040033	+57878	-36732	1.7
1.8	I-69314377	+55791	-40806	I-64249933	+56951	-38498	I-59242439	+58165	-36249	1.8
1.9	I-67769737	+55910	-40168	I-62560609	+57116	-37941	I-57408596	+58390	-35767	1.9
2.0	I-66184929	+55989	-39539	I-60833343	+57229	-37389	I-55538986	+58590	-35287	2.0
2.1	I-64560583	+56056	-38921	I-59068689	+57294	-36844	I-53634089	+58764	-34811	2.1
2.2	I-62897315	+56080	-38314	I-57267190	+57316	-36307	I-51694381	+58910	-34340	2.2
2.3	I-61195734	+56090	-37719	I-55429384	+57298	-35779	I-49720333	+59030	-33875	2.3
2.4	I-59456434	+56077	-37136	I-53555799	+57245	-35260	I-47712410	+59131	-33417	2.4
2.5	I-57679998	+56064	-36566	I-51646954	+57160	-34751	I-45671070	+59206	-32966	2.5
2.6	I-55866996	+56046	-36000	I-49703357	+57048	-34253	I-43596764	+59256	-32522	2.6
2.7	I-54017986	+56024	-35464	I-47725508	+56905	-33794	I-41489936	+59284	-32087	2.7
2.8	I-52133510	+56000	-34933	I-45713895	+56741	-33360	I-39351020	+59286	-31660	2.8
2.9	I-50214102	+56000	-34414	I-43668996	+56555	-32818	I-37180445	+59255	-31241	2.9
3.0	I-48260279	+56000	-33908	I-41591279	+56350	-32361	I-34978629	+59181	-30830	3.0
3.1	I-46272548	+56000	-33415	I-39481201	+56125	-31914	I-32745982	+59074	-30423	3.1
3.2	I-44251402	+56000	-32933	I-37339210	+55890	-31477	I-30482908	+58930	-30034	3.2
3.3	I-42197323	+56000	-32463	I-35165742	+55638	-31049	I-28189799	+58749	-29643	3.3
3.4	I-40110781	+56000	-32005	I-32961225	+55374	-30632	I-25867042	+58534	-29270	3.4
3.5	I-37992234	+56000	-31558	I-30726076	+55098	-30224	I-23515015	+58286	-28900	3.5
3.6	I-35842129	+56000	-31122	I-28460702	+54812	-29826	I-21134087	+58006	-28533	3.6
3.7	I-33660903	+56000	-30696	I-26165503	+54518	-29436	I-18724621	+57697	-28184	3.7
3.8	I-31448980	+56000	-30289	I-23840867	+54216	-29056	I-16286971	+57359	-27838	3.8
3.9	I-29206775	+56000	-29877	I-21487175	+53908	-28684	I-13821483	+56999	-27495	3.9
4.0	I-26934695	+56000	-29481	I-19104799	+53593	-28321	I-11328497	+56549	-27166	4.0

$p$	$u = 0.8$			$u = 0.9$			$u = 1.0$			$p$
	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	
-1.00	.00000000	0	0	.00000000	0	0	.00000000	0	0	-1.00
-.95	I-97558535	+432	+1102385	I-97516153	+425	+1076842	I-97474197	+421	+1049912	-.95
-.90	I-96219458	+1495	+295983	I-96108148	+1470	+257773	I-95998306	+1446	+276063	-.90
-.85	I-95180264	+2066	+164311	I-94987916	+2011	+147036	I-94798478	+2038	+140022	-.85
-.80	I-94295381	+4706	+82398	I-94014720	+4613	+27976	I-93738672	+4525	+27003	-.80
-.75	I-93502895	+6022	+69446	I-93129201	+6491	+66294	I-92761998	+6362	+53245	-.75
-.70	I-92769859	+8645	+13182	I-92299976	+8476	+12641	I-91838569	+8307	+12134	-.70
-.65	I-92076496	+10731	+39674	I-91508303	+10522	+8476	I-90950632	+10317	+6348	-.65
-.60	I-91409991	+12841	+26585	I-90742085	+12597	+25455	I-90086777	+12355	+24082	-.60
-.55	I-90761577	+14960	+18091	I-89993076	+14675	+17209	I-89239249	+14403	+16327	-.55
-.50	I-90125016	+17040	+12841	I-89255421	+16740	+12597	I-88402565	+16438	+10844	-.50
-.45	I-89495731	+19094	+7276	I-88524832	+18774	+7068	I-87572707	+18451	+6826	-.45
-.40	I-88870278	+21105	+1135	I-87798089	+20771	+1063	I-86746671	+20429	+3822	-.40
-.35	I-88246017	+23065	+304	I-87072723	+22720	+184	I-85922150	+22366	+697	-.35
-.30	I-87620891	+24871	+1192	I-86346813	+24816	+583	I-85097352	+24264	+1516	-.30
-.25	I-86993276	+26502	+683	I-85618837	+26451	+399	I-84270858	+26089	+1666	-.25
-.20	I-86361875	+28092	+251	I-84887584	+28243	+220	I-83441536	+27677	+210	-.20
-.15	I-85725642	+30307	-4832	I-84152073	+29966	-4258	I-82608469	+29609	-3745	-.15
-.10	I-85083730	+31846	+197	I-83411507	+31628	+184	I-81770913	+31277	+173	-.10
-.05	I-84435447	+33540	-3679	I-82665237	+33229	-5055	I-80928255	+32892	-4459	-.05
-.00	I-83780225	+35069	+423	I-81912724	+34769	+181	I-80079992	+34449	+110	-.00
0	I-83780225	+35059	-7406	I-81912724	+34789	-6688	I-80079992	+34449	-6025	0
.1	I-82447178	+37008	+82	I-80387276	+37608	+76	I-78365042	+37391	+71	.1
.2	I-81081752	+40612	-2542	I-78832454	+40332	-28664	I-76623489	+40111	-24028	.2
.3	I-79682021	+42883	+1345	I-77246392	+42773	+1247	I-74853537	+42617	+1165	.3
.4	I-78246691	+46035	-3275	I-75627812	+45002	-2974	I-73053936	+44917	-2689	.4
.5	I-76774921	+46984	+3090	I-73975858	+47032	+3829	I-71223826	+47024	+269	.5
.6	I-75266194	+48742	-3697	I-72289974	+48875	-3929	I-69362630	+48949	-310	.6
.7	I-73720234	+50923	+179	I-70569834	+50344	+169	I-67469978	+50703	+169	.7
.8	I-72136941	+51742	-3732	I-68815276	+52051	-3417	I-65545661	+52296	-3166	.8
.9	I-70516351	+53009	+134	I-67026267	+53408	+127	I-63589590	+53741	+120	.9
1.0	I-68858599	+54138	-3723	I-65202869	+54625	-3458	I-61601764	+55646	-3169	1.0
1.1	I-67163895	+55139	+56	I-63345219	+56714	+301	I-59582257	+56221	+55	1.1
1.2	I-65432507	+56092	-3684	I-61453509	+56683	-34060	I-57531193	+57217	-3153	1.2
1.3	I-63664748	+56798	+43	I-59527975	+57542	+43	I-55448744	+58220	+42	1.3
1.4	I-61860959	+57474	-3672	I-57568886	+58299	-38324	I-53335112	+59060	-3183	1.4
1.5	I-60021511	+58058	+32	I-55576536	+58963	+19	I-51190524	+59905	+26	1.5
1.6	I-58146787	+58559	-3527	I-53551239	+59540	-32948	I-49015230	+60480	-36707	1.6
1.7	I-56237185	+58983	+12	I-51493321	+60037	+14	I-46809493	+61083	+15	1.7
1.8	I-54293111	+59357	-3475	I-49403119	+60460	-32621	I-44573588	+61529	-30443	1.8
1.9	I-52314975	+59625	+5	I-47280979	+60818	+10	I-42307799	+61955	+12	1.9
2.0	I-50303189	+59866	-3442	I-45127248	+61110	-31639	I-40012416	+62316	-29584	2.0
2.1	I-48258168	+60031	+2	I-42942277	+61346	+4	I-37687733	+62618	+6	2.1
2.2	I-46180322	+60187	-3824	I-40726420	+61629	-30857	I-35334047	+62869	-29003	2.2
2.3	I-44070061	+60237	+39	I-38480026	+61684	+39	I-32951656	+63063	+2	2.3
2.4	I-41927790	+60276	-3210	I-36203447	+61754	-30186	I-30540859	+63199	-28406	2.4
2.5	I-39753912	+60277	+4	I-33897030	+61804	-29658	I-28101953	+63300	-28109	2.5
2.6	I-37548821	+60243	-5	I-31561120	+61815	-29493	I-25635235	+63381	-27812	2.6
2.7	I-35312908	+60177	+8	I-29196057	+61792	-29162	I-23140999	+63385	-27605	2.7
2.8	I-33046559	+60081	-3	I-26802179	+61735	-28815	I-20619537	+63374	-27225	2.8
2.9	I-30750152	+59960	+2	I-24379819	+61654	-28482	I-18071140	+63352	-26936	2.9
3.0	I-28424060	+59814	-7	I-21929304	+61643	-28169	I-15496092	+63260	-26660	3.0
3.1	I-26068648	+59646	+1	I-19450959	+61408	-27931	I-12894678	+63162	-26367	3.1
3.2	I-23684275	+59458	-5	I-16945101	+61261	-27618	I-10267177	+63058	-26057	3.2
3.3	I-21271295	+59252	+8	I-14412043	+61073	-27200	I-07613865	+62952	-25811	3.3
3.4	I-18830054	+59030	-4	I-11852095	+60877	-26815	I-04935013	+62828	-25539	3.4
3.5	I-16360890	+58783	+7	I-09265559	+60663	-26458	I-02230890	+62540	-25271	3.5
3.6	I-13864139	+58542	-2	I-06652732	+60434	-26119	I-99501760	+62338	-25007	3.6
3.7	I-11340126	+58279	+6	I-04013909	+60191	-25797	I-96747884	+62117	-24746	3.7
3.8	I-08789171	+58005	-1	I-01349376	+59936	-25427	I-93969517	+61885	-24490	3.8
3.9	I-06211590	+57721	+5	I-98659417	+59668	-25149	I-91166913	+61636	-24238	3.9
4.0	I-03607689	+57428	-8	I-95944308	+59391	-24877	I-88340319	+61376	-23989	4.0

$p$	$u = 0.5$				$u = 0.6$				$u = 0.7$				$p$
	$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		$\log I'(u, p)$	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$		
4.0	$\bar{1}.26934695$	+51730 -41	-29481 -10		$\bar{1}.19104799$	+63998 +38	-28321 -8		$\bar{1}.11328497$	+56404 +33	-27166 -7		4.0
4.1	$\bar{1}.24633132$	+51405 +44	-29096 -9		$\bar{1}.16694102$	+63273 +40	-27966 -8		$\bar{1}.08808345$	+55183 +36	-26841 -7		4.1
4.2	$\bar{1}.22302474$	+51076 +46	-28719 -9		$\bar{1}.14255438$	+62950 +42	-27619 -8		$\bar{1}.06261351$	+54966 +38	-26523 -6		4.2
4.3	$\bar{1}.19943097$	+50744 +47	-28352 -9		$\bar{1}.11789155$	+62622 +45	-27280 -6		$\bar{1}.03687835$	+54544 +41	-26211 -6		4.3
4.4	$\bar{1}.17555367$	+50411 +49	-27993 -9		$\bar{1}.09295592$	+62291 +46	-26948 -8		$\bar{1}.01088107$	+54218 +43	-25907 -6		4.4
4.5	$\bar{1}.15139645$	+50076 +51	-27643 -8		$\bar{1}.06775080$	+61958 +48	-26624 -7		$\bar{2}.98462472$	+63888 +45	-25608 -6		4.5
4.6	$\bar{1}.12696279$	+49740 +53	-27300 -8		$\bar{1}.04227943$	+61622 +50	-26307 -7		$\bar{2}.95811230$	+63655 +47	-25318 -6		4.6
4.7	$\bar{1}.10225614$	+49403 +54	-26968 -7		$\bar{1}.01654500$	+61286 +51	-26097 -6		$\bar{2}.93134671$	+63222 +50	-25030 -6		4.7
4.8	$\bar{1}.07727982$	+49065 +56	-26639 -7		$\bar{2}.99055059$	+60947 +53	-25894 -6		$\bar{2}.90433083$	+62883 +51	-24749 -5		4.8
4.9	$\bar{1}.05203711$	+48723 +57	-26320 -7		$\bar{2}.96429923$	+60609 +53	-25697 -6		$\bar{2}.87706745$	+62544 +53	-24475 -5		4.9
5.0	$\bar{1}.02653120$	+48391 +58	-26009 -7		$\bar{2}.93779391$	+60269 +57	-25107 -6		$\bar{2}.84955932$	+62204 +54	-24206 -5		5.0
5.1	$\bar{1}.00076521$	+48053 +59	-25703 -7		$\bar{2}.91103752$	+60930 +58	-24823 -6		$\bar{2}.82180913$	+61864 +55	-23942 -5		5.1
5.2	$\bar{2}.97474219$	+47719 +61	-25404 -6		$\bar{2}.88403290$	+60591 +59	-24545 -6		$\bar{2}.79381951$	+61322 +58	-23685 -6		5.2
5.3	$\bar{2}.94846513$	+47385 +62	-25112 -6		$\bar{2}.85678283$	+60253 +61	-24273 -8		$\bar{2}.76559305$	+61161 +59	-23431 -5		5.3
5.4	$\bar{2}.92193694$	+47053 +62	-24827 -6		$\bar{2}.82929004$	+60915 +62	-24006 -6		$\bar{2}.73713228$	+60840 +59	-23184 -5		5.4
5.5	$\bar{2}.89516049$	+46720 +64	-24548 -6		$\bar{2}.80155719$	+60578 +63	-23746 -5		$\bar{2}.70843967$	+60499 +62	-22940 -5		5.5
5.6	$\bar{2}.86813856$	+46380 +64	-24274 -6		$\bar{2}.77358689$	+60242 +64	-23489 -6		$\bar{2}.67951765$	+60159 +63	-22702 -4		5.6
5.7	$\bar{2}.84087389$	+46041 +65	-24007 -5		$\bar{2}.74538171$	+60903 +65	-23238 -5		$\bar{2}.65036861$	+60920 +64	-22463 -4		5.7
5.8	$\bar{2}.81336915$	+45703 +65	-23745 -4		$\bar{2}.71694414$	+60567 +66	-22993 -5		$\bar{2}.62099488$	+60482 +65	-22240 -4		5.8
5.9	$\bar{2}.78562696$	+45365 +66	-23488 -5		$\bar{2}.68827664$	+60234 +67	-22752 -5		$\bar{2}.59139876$	+60145 +68	-22015 -4		5.9
6.0	$\bar{2}.75764990$	+45028 +67	-23237 -5		$\bar{2}.65938162$	+60901 +68	-22517 -4		$\bar{2}.56158249$	+60810 +67	-21794 -4		6.0
6.1	$\bar{2}.72944046$	+44693 +68	-22991 -5		$\bar{2}.63026143$	+60568 +68	-22286 -4		$\bar{2}.53154827$	+60475 +68	-21578 -4		6.1
6.2	$\bar{2}.70100112$	+44359 +69	-22750 -5		$\bar{2}.60091838$	+60236 +69	-22059 -4		$\bar{2}.50129827$	+60143 +69	-21366 -4		6.2
6.3	$\bar{2}.67233427$	+44025 +69	-22514 -5		$\bar{2}.57135475$	+60904 +69	-21837 -4		$\bar{2}.47083462$	+60813 +70	-21159 -4		6.3
6.4	$\bar{2}.64344229$	+43692 +70	-22282 -4		$\bar{2}.54157274$	+60570 +70	-21619 -4		$\bar{2}.44015938$	+60478 +71	-20933 -4		6.4
6.5	$\bar{2}.61432749$	+43359 +70	-22055 -4		$\bar{2}.51157455$	+60239 +71	-21405 -4		$\bar{2}.40927461$	+60145 +71	-20763 -4		6.5
6.6	$\bar{2}.58499213$	+43024 +70	-21833 -4		$\bar{2}.48136230$	+60904 +71	-21198 -4		$\bar{2}.37818231$	+60814 +72	-20556 -4		6.6
6.7	$\bar{2}.55543844$	+42689 +71	-21615 -4		$\bar{2}.45093810$	+60570 +72	-20990 -4		$\bar{2}.34688446$	+60482 +73	-20362 -4		6.7
6.8	$\bar{2}.52566861$	+42357 +71	-21401 -4		$\bar{2}.42030400$	+60236 +72	-20788 -4		$\bar{2}.31538298$	+60153 +73	-20172 -4		6.8
6.9	$\bar{2}.49568477$	+42027 +71	-21191 -4		$\bar{2}.38946202$	+60905 +73	-20590 -4		$\bar{2}.28367977$	+60825 +73	-19986 -4		6.9
7.0	$\bar{2}.46548902$	+42000 +71	-20985 -4		$\bar{2}.35841414$	+60573 +73	-20395 -4		$\bar{2}.25177671$	+60560 +74	-19803 -4		7.0
7.1	$\bar{2}.43508342$	+41706 +72	-20783 -4		$\bar{2}.32716231$	+60240 +73	-20204 -4		$\bar{2}.21967561$	+60247 +74	-19623 -4		7.1
7.2	$\bar{2}.40446998$	+41415 +72	-20585 -4		$\bar{2}.29570844$	+60904 +73	-20017 -4		$\bar{2}.18737829$	+60937 +75	-19446 -4		7.2
7.3	$\bar{2}.37365070$	+41126 +72	-20390 -4		$\bar{2}.26405440$	+60571 +74	-19833 -4		$\bar{2}.15488651$	+60603 +75	-19272 -4		7.3
7.4	$\bar{2}.34262751$	+40840 +73	-20199 -4		$\bar{2}.23220203$	+60236 +74	-19652 -4		$\bar{2}.12220201$	+60285 +75	-19101 -4		7.4
7.5	$\bar{2}.31140233$	+40557 +72	-20012 -4		$\bar{2}.20015314$	+60905 +74	-19474 -4		$\bar{2}.08932649$	+60402 +75	-18933 -4		7.5
7.6	$\bar{2}.27997703$	+40277 +73	-19828 -4		$\bar{2}.16790952$	+60570 +74	-19299 -4		$\bar{2}.05626164$	+60175 +75	-18768 -4		7.6
7.7	$\bar{2}.24835345$	+39999 +73	-19647 -4		$\bar{2}.13547290$	+60236 +74	-19128 -4		$\bar{2}.02300911$	+60948 +76	-18606 -4		7.7
7.8	$\bar{2}.21653340$	+39724 +72	-19469 -4		$\bar{2}.10284500$	+60901 +74	-18959 -4		$\bar{2}.98957052$	+60131 +76	-18446 -4		7.8
7.9	$\bar{2}.18451865$	+39452 +72	-19295 -4		$\bar{2}.07002751$	+60567 +74	-18793 -4		$\bar{2}.95594746$	+60839 +77	-18290 -4		7.9
8.0	$\bar{2}.15231096$	+39183 +72	-19123 -4		$\bar{2}.03702208$	+60236 +74	-18631 -4		$\bar{2}.92214151$	+60550 +77	-18135 -4		8.0
8.1	$\bar{2}.11991203$	+38917 +73	-18955 -4		$\bar{2}.00383035$	+60905 +74	-18470 -4		$\bar{2}.88815420$	+60234 +77	-17983 -4		8.1
8.2	$\bar{2}.08732356$	+38653 +72	-18789 -4		$\bar{2}.97045391$	+60570 +74	-18313 -4		$\bar{2}.85398706$	+60980 +77	-17834 -4		8.2
8.3	$\bar{2}.05454719$	+38392 +72	-18628 -4		$\bar{2}.93689434$	+60236 +74	-18168 -4		$\bar{2}.81964159$	+60189 +77	-17687 -4		8.3
8.4	$\bar{2}.02158455$	+38134 +72	-18467 -4		$\bar{2}.90315320$	+60904 +74	-18006 -4		$\bar{2}.78511924$	+60420 +77	-17542 -4		8.4
8.5	$\bar{2}.98843725$	+37878 +71	-18309 -4		$\bar{2}.86923199$	+60570 +74	-17866 -4		$\bar{2}.75042147$	+60144 +76	-17400 -4		8.5
8.6	$\bar{2}.95510686$	+37625 +71	-18155 -4		$\bar{2}.83513222$	+60236 +74	-17709 -4		$\bar{2}.71554970$	+60871 +76	-17260 -4		8.6
8.7	$\bar{2}.92159492$	+37375 +71	-18002 -4		$\bar{2}.80085537$	+60905 +74	-17564 -4		$\bar{2}.68050533$	+60601 +76	-17122 -4		8.7
8.8	$\bar{2}.88790296$	+37127 +71	-17853 -4		$\bar{2}.76640288$	+60570 +74	-17421 -4		$\bar{2}.64528973$	+60338 +76	-16986 -4		8.8
8.9	$\bar{2}.85403247$	+36882 +71	-17706 -4		$\bar{2}.73177618$	+60236 +73	-17280 -4		$\bar{2}.60990428$	+60068 +76	-16853 -4		8.9
9.0	$\bar{2}.81998492$	+36639 +71	-17561 -4		$\bar{2}.69697669$	+60901 +73	-17142 -4		$\bar{2}.57435030$	+60805 +76	-16721 -4		9.0
9.1	$\bar{2}.78576177$	+36399 +71	-17418 -4		$\bar{2}.66200576$	+60570 +73	-17006 -4		$\bar{2}.53862911$	+60545 +76	-16591 -4		9.1
9.2	$\bar{2}.75136444$	+36162 +70	-17278 -4		$\bar{2}.62866478$	+60236 +73	-16872 -4		$\bar{2}.50274201$	+60287 +76	-16464 -4		9.2
9.3	$\bar{2}.71679433$	+35927 +70	-17140 -4		$\bar{2}.59155508$	+60904 +73	-16740 -4		$\bar{2}.46669027$	+60032 +76	-16338 -4		9.3
9.4	$\bar{2}.68205282$	+35695 +70	-17004 -4		$\bar{2}.55607798$	+60570 +72	-16610 -4		$\bar{2}.43047516$	+60870 +76	-16214 -4		9.4
9.5	$\bar{2}.64714127$	+35465 +70	-16870 -4		$\bar{2}.52043478$	+60236 +72	-16482 -4		$\bar{2}.39409790$	+60615 +75	-16092 -4		9.5
9.6	$\bar{2}.61206103$	+35237 +69	-16738 -4		$\bar{2}.48462675$	+60904 +72	-16358 -4		$\bar{2}.35755972$	+60365 +75	-15972 -4		9.6
9.7	$\bar{2}.57681339$	+35012 +69	-16609 -4		$\bar{2}.44865516$	+60570 +72	-16232 -4		$\bar{2}.32086182$	+60115 +75	-15853 -4		9.7
9.8	$\bar{2}.54139967$	+34790 +69	-16481 -4		$\bar{2}.41252125$	+60236 +72	-16110 -4		$\bar{2}.28400539$	+60865 +75	-15737 -4		9.8
9.9	$\bar{2}.50582114$	+34569 +68	-16355 -4		$\bar{2}.37622624$	+60901 +72	-15990 -						

$p$	$u = 0.8$				$u = 0.9$				$u = 1.0$				$p$
	$\log I'(u, p)$	$\delta_u^2$	$\delta_p^2$	$\delta_p^2$	$\log I'(u, p)$	$\delta_u^2$	$\delta_p^2$	$\delta_p^2$	$\log I'(u, p)$	$\delta_u^2$	$\delta_p^2$	$\delta_p^2$	
		$\delta_u^4$	$\delta_p^4$			$\delta_u^4$	$\delta_p^4$			$\delta_u^4$	$\delta_p^4$		
4.0	I.03607689	+57425 +29	-26018 -6		2.95944308	+59391 +23	-24877 -5		2.88340319	+61876 +10	-23745 -4		4.0
4.1	I.00977770	+57128 +31	-26721 -6		2.93204323	+59104 +26	-24609 -5		2.85489980	+61106 +19	-23505 -4		4.1
4.2	2.98322130	+56820 +34	-26431 -6		2.90439729	+58808 +29	-24346 -4		2.82616136	+60366 +32	-23265 -4		4.2
4.3	2.95641058	+56509 +36	-26147 -5		2.87650788	+58506 +32	-24088 -4		2.79719024	+60536 +25	-23038 -4		4.3
4.4	2.92934840	+56187 +39	-25865 -5		2.84837760	+58196 +34	-23835 -4		2.76798876	+60238 +29	-22807 -4		4.4
4.5	2.90203753	+55865 +41	-25585 -5		2.82000897	+57880 +37	-23586 -4		2.73855921	+59954 +32	-22582 -4		4.5
4.6	2.87448071	+55535 +44	-25307 -4		2.79140448	+57559 +39	-23341 -4		2.70890384	+59622 +34	-22301 -4		4.6
4.7	2.84668063	+55204 +46	-25034 -4		2.76256658	+57234 +41	-23101 -4		2.67902487	+59305 +37	-22143 -4		4.7
4.8	2.81863990	+54879 +48	-24766 -6		2.73349766	+56904 +44	-22866 -4		2.64892446	+58982 +40	-21929 -4		4.8
4.9	2.79036110	+54532 +50	-24504 -5		2.70420008	+56571 +46	-22635 -4		2.61860477	+58655 +42	-21718 -4		4.9
5.0	2.76184677	+54194 +52	-23306 -5		2.67467616	+56235 +48	-22407 -4		2.58806789	+58324 +44	-21512 -4		5.0
5.1	2.73309938	+53858 +54	-23063 -5		2.64492816	+55896 +50	-22194 -4		2.55731590	+57989 +46	-21306 -4		5.1
5.2	2.70412136	+53511 +55	-22824 -5		2.61495831	+55556 +52	-21965 -4		2.52635083	+57652 +48	-21103 -4		5.2
5.3	2.67491509	+53169 +57	-22590 -4		2.58476882	+55213 +54	-21750 -4		2.49517467	+57312 +51	-20911 -4		5.3
5.4	2.64548292	+52829 +59	-22361 -4		2.55436182	+54871 +56	-21539 -4		2.46378941	+56970 +52	-20717 -4		5.4
5.5	2.61582714	+52492 +60	-22136 -4		2.52373943	+54525 +58	-21331 -4		2.43219698	+56626 +54	-20527 -4		5.5
5.6	2.58595000	+52159 +61	-21915 -4		2.49290374	+54180 +59	-21127 -4		2.40039928	+56281 +56	-20339 -4		5.6
5.7	2.55585371	+51796 +62	-21698 -4		2.46185677	+53835 +60	-20920 -4		2.36839819	+55934 +58	-20155 -4		5.7
5.8	2.52554044	+51434 +64	-21485 -4		2.43060055	+53489 +62	-20730 -4		2.33619554	+55587 +59	-19974 -4		5.8
5.9	2.49501233	+51112 +65	-21276 -4		2.39913702	+53144 +64	-20536 -4		2.30379315	+55240 +61	-19796 -4		5.9
6.0	2.46427146	+50771 +66	-21071 -4		2.36746814	+52799 +65	-20346 -4		2.27119281	+54892 +63	-19620 -4		6.0
6.1	2.43331987	+50429 +67	-20869 -4		2.3359580	+52455 +66	-20159 -4		2.23839627	+54544 +64	-19447 -4		6.1
6.2	2.40215960	+50094 +68	-20671 -4		2.30352187	+52112 +67	-19975 -4		2.20540525	+54197 +66	-19273 -4		6.2
6.3	2.37079262	+49757 +69	-20477 -4		2.27124819	+51770 +68	-19794 -4		2.17222146	+53851 +67	-19110 -4		6.3
6.4	2.33922087	+49422 +70	-20286 -4		2.23877657	+51425 +70	-19617 -4		2.13884656	+53505 +68	-18946 -4		6.4
6.5	2.30744626	+49088 +71	-20098 -4		2.20610879	+51089 +70	-19442 -4		2.10528220	+53159 +69	-18784 -4		6.5
6.6	2.27547067	+48756 +71	-19914 -4		2.17324659	+50750 +72	-19270 -4		2.07153001	+52815 +70	-18625 -4		6.6
6.7	2.24329594	+48427 +73	-19733 -4		2.14019168	+50418 +73	-19101 -4		2.03759156	+52472 +71	-18468 -4		6.7
6.8	2.21092388	+48099 +73	-19555 -4		2.10694577	+50078 +75	-18935 -4		2.00346845	+52131 +72	-18313 -4		6.8
6.9	2.17835627	+47773 +74	-19380 -4		2.07351051	+49745 +74	-18771 -4		1.96916219	+51791 +73	-18161 -4		6.9
7.0	2.14559487	+47450 +74	-19208 -4		2.03988753	+49414 +76	-18611 -4		1.93467433	+51452 +74	-18011 -4		7.0
7.1	2.11264138	+47129 +75	-19039 -4		2.00607845	+49085 +76	-18452 -4		1.90000635	+51116 +75	-17864 -4		7.1
7.2	2.07949751	+46810 +75	-18872 -4		1.97208484	+48757 +77	-18297 -4		1.86515973	+50781 +76	-17719 -4		7.2
7.3	2.04616492	+46493 +76	-18709 -4		1.93790826	+48432 +76	-18143 -4		1.83013593	+50448 +76	-17576 -4		7.3
7.4	2.01264523	+46179 +77	-18548 -4		1.90355025	+48109 +78	-17993 -4		1.79493636	+50116 +77	-17435 -4		7.4
7.5	1.97894006	+45867 +77	-18390 -4		1.86901231	+47789 +77	-17844 -4		1.75956244	+49787 +78	-17290 -4		7.5
7.6	1.94505099	+45558 +77	-18235 -4		1.83429592	+47471 +77	-17698 -4		1.72401556	+49460 +79	-17160 -4		7.6
7.7	1.91097957	+45251 +77	-18082 -4		1.79940255	+47155 +78	-17555 -4		1.68829708	+49136 +79	-17025 -4		7.7
7.8	1.87627234	+44947 +77	-17931 -4		1.76433364	+46841 +79	-17413 -4		1.65240835	+48813 +79	-16892 -4		7.8
7.9	1.84229580	+44646 +77	-17783 -4		1.72909060	+46530 +79	-17274 -4		1.61635069	+48493 +80	-16762 -4		7.9
8.0	1.80768643	+44347 +77	-17637 -4		1.69367482	+46221 +79	-17136 -4		1.58012542	+48175 +80	-16633 -4		8.0
8.1	1.77290069	+44051 +77	-17493 -4		1.65808768	+45915 +80	-17001 -4		1.54373381	+47859 +80	-16506 -4		8.1
8.2	1.73794001	+43757 +78	-17352 -4		1.62233052	+45611 +80	-16868 -4		1.50717715	+47546 +80	-16381 -4		8.2
8.3	1.70280581	+43466 +78	-17213 -4		1.58640469	+45310 +80	-16737 -4		1.47045667	+47235 +81	-16258 -4		8.3
8.4	1.66749948	+43177 +78	-17076 -4		1.55031149	+45011 +80	-16607 -4		1.43357362	+46926 +82	-16136 -4		8.4
8.5	1.63202239	+42891 +78	-16941 -4		1.51405222	+44716 +80	-16480 -4		1.39652920	+46620 +82	-16010 -4		8.5
8.6	1.59637588	+42607 +79	-16809 -4		1.47762814	+44422 +80	-16355 -4		1.35932462	+46317 +82	-15895 -4		8.6
8.7	1.56056129	+42326 +79	-16678 -4		1.44104052	+44131 +80	-16231 -4		1.32196106	+46016 +82	-15782 -4		8.7
8.8	1.52457992	+42048 +79	-16549 -4		1.40429059	+43843 +80	-16109 -4		1.28443968	+45717 +82	-15667 -4		8.8
8.9	1.48843306	+41773 +78	-16422 -4		1.36737956	+43557 +81	-15989 -4		1.24676163	+45421 +82	-15554 -4		8.9
9.0	1.45212197	+41500 +78	-16297 -4		1.33030864	+43273 +81	-15871 -4		1.20892804	+45127 +82	-15442 -4		9.0
9.1	1.41564791	+41230 +78	-16174 -4		1.29307901	+42988 +81	-15754 -4		1.17094003	+44832 +82	-15332 -4		9.1
9.2	1.37901211	+40962 +78	-16053 -4		1.25569183	+42715 +81	-15639 -4		1.13279870	+44548 +82	-15223 -4		9.2
9.3	1.34221579	+40697 +78	-15933 -4		1.21814827	+42449 +81	-15526 -4		1.09450514	+44269 +82	-15118 -4		9.3
9.4	1.30526013	+40434 +78	-15815 -4		1.18044944	+42186 +81	-15414 -4		1.05606042	+43979 +82	-15010 -4		9.4
9.5	1.26814632	+40174 +78	-15699 -4		1.14259648	+41926 +81	-15304 -4		1.01746559	+43696 +82	-14906 -4		9.5
9.6	1.23087551	+39916 +78	-15585 -4		1.10459047	+41668 +80	-15195 -4		1.97872171	+43419 +82	-14803 -4		9.6
9.7	1.19344886	+39661 +77	-15472 -4		1.06643252	+41413 +80	-15088 -4		1.93982980	+43143 +83	-14702 -4		9.7
9.8	1.15586749	+39409 +77	-15360 -4		1.02812368	+41159 +80	-14982 -4		1.90079087	+42870 +83	-14601 -4		9.8
9.9	1.11813252	+39159 +77	-15251 -4		1.98966503	+40939 +80	-14879 -4		1.86160592	+42599 +82	-14503 -4		9.9
10.0	1.08024504	+38911 +77	-15143 -4		1.95105759	+40681 +80	-14775 -4		1.82227596	+42330 +82	-14405 -4		10.0

p	u = 1.0			u = 1.1			u = 1.2			p
	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	log I'(u, p)	$\delta_u^2$	$\delta_p^2$	
-1.00	.00000000	0	0	.00000000	0	0	.00000000	0	0	-1.00
-.95	I-97474197	+421	+1049912	I-97432663	+415	+1024585	I-97391544	+410	+899849	-.95
-.90	I-95998306	+1445	+276068	I-95889911	+1421	+264740	I-95782937	+1397	+253783	-.90
-.85	I-94798478	+2855	+140022	I-94611899	+2804	+139355	I-94428123	+2769	+126759	-.85
-.80	I-93738672	+4525	+68132	I-93467152	+4437	+78753	I-93200068	+4350	+74541	-.80
-.75	I-92761998	+6369	+53945	I-92401158	+6236	+60806	I-92046554	+6110	+47471	-.75
-.70	I-91838569	+8307	+35492	I-91385470	+8141	+39495	I-90940511	+7976	+31504	-.70
-.65	I-90950632	+10817	+24082	I-90403277	+10110	+22740	I-89866032	+9907	+21481	-.65
-.60	I-90086777	+12355	+16327	I-89443824	+12113	+13455	I-88812984	+11875	+14584	-.60
-.55	I-89239249	+14403	+10644	I-88499826	+14127	+10319	I-87774530	+13853	+9788	-.55
-.50	I-88402565	+16438	+6826	I-87566147	+16134	+6566	I-86745864	+15830	+6284	-.50
-.45	I-87572707	+18451	+3822	I-86639034	+18122	+3760	I-85723482	+17791	+3679	-.45
-.40	I-86746671	+20429	+1515	I-85715681	+20098	+1314	I-84704772	+19728	+1374	-.40
-.35	I-85922150	+22366	-277	I-84793942	+22001	-57	I-83687736	+21631	+120	-.35
-.30	I-85097352	+24254	-1696	I-83872146	+23890	-1378	I-82670820	+23497	-1196	-.30
-.25	I-84270858	+26082	-2988	I-82948972	+25719	-2433	I-81652798	+25320	-2086	-.25
-.20	I-83441536	+27877	-3745	I-82023365	+27495	-3288	I-80632690	+27099	-2881	-.20
-.15	I-82608469	+29609	-4469	I-81094472	+29222	-3983	I-79609701	+28630	-3528	-.15
-.10	I-81770913	+31277	-5102	I-80161596	+30905	-4554	I-78583184	+30511	-4061	-.10
-.05	I-80928255	+32823	-5600	I-79224166	+32529	-5023	I-77552606	+32144	-4593	-.05
.00	I-80079992	+34449	-6025	I-78281708	+34100	-5421	I-76517525	+33725	-4872	.00
.0	I-80079992	+34449	-6025	I-78281708	+34100	-5421	I-76517525	+33725	-4872	.0
.1	I-78365042	+37391	-26003	I-76380199	+37081	-24066	I-74432437	+36737	-21720	.1
.2	I-76623489	+40111	-28599	I-74454635	+40550	-25779	I-72325630	+39549	-23550	.2
.3	I-74853537	+42617	-29648	I-72503298	+42414	-26984	I-70195473	+42166	-24516	.3
.4	I-73053936	+44917	-30509	I-70524977	+44761	-27886	I-68040799	+44594	-26392	.4
.5	I-71223826	+47034	-31087	I-68518820	+46961	-28428	I-65860774	+46842	-26946	.5
.6	I-69326230	+48949	-31455	I-66484234	+48983	-28824	I-63654802	+48918	-28300	.6
.7	I-67469978	+50703	-31865	I-64420825	+50798	-29072	I-61422471	+50830	-28687	.7
.8	I-65545661	+52296	-31755	I-62328343	+52476	-29208	I-59163502	+52689	-28609	.8
.9	I-63589590	+53741	-31754	I-60206654	+54006	-29259	I-56877724	+54302	-28902	.9
1.0	I-61601764	+55046	-31682	I-58055705	+55397	-29241	I-54565044	+55678	-28930	1.0
1.1	I-59582257	+56221	-31565	I-55875516	+56606	-29171	I-52225434	+56025	-28906	1.1
1.2	I-57531193	+57217	-31386	I-53666155	+57601	-29060	I-49858917	+56252	-28848	1.2
1.3	I-55448744	+58220	-31183	I-51427734	+58330	-28915	I-47465553	+56366	-28752	1.3
1.4	I-53335112	+59060	-30955	I-49160398	+58754	-28745	I-45045438	+56375	-28633	1.4
1.5	I-51190524	+60806	-30707	I-46864317	+60679	-28555	I-42598689	+61282	-28498	1.5
1.6	I-49015230	+60400	-30443	I-44539681	+61314	-28348	I-40125447	+62098	-28348	1.6
1.7	I-46809493	+61032	-30166	I-42186698	+61965	-28128	I-37625867	+62823	-28168	1.7
1.8	I-44573588	+61529	-29884	I-39805586	+62536	-27899	I-35100120	+63477	-27985	1.8
1.9	I-42307799	+61955	-29594	I-37396574	+63085	-27663	I-32548384	+64050	-27800	1.9
2.0	I-40012416	+62315	-29300	I-34959900	+63465	-27421	I-29970849	+64558	-27605	2.0
2.1	I-37687733	+62616	-29003	I-32495805	+63833	-27174	I-27367709	+64991	-27404	2.1
2.2	I-35334047	+62860	-28705	I-30004535	+64142	-26926	I-24739164	+65367	-27201	2.2
2.3	I-32951656	+63053	-28406	I-27486340	+64397	-26675	I-22085419	+65687	-24994	2.3
2.4	I-30540859	+63199	-28109	I-24941469	+64601	-26423	I-19406681	+65953	-24755	2.4
2.5	I-28101953	+63300	-27812	I-22370176	+64758	-26172	I-16703157	+66170	-24574	2.5
2.6	I-25635235	+63361	-27516	I-19772711	+64873	-25921	I-13975059	+66342	-24383	2.6
2.7	I-23140999	+63385	-27220	I-17149325	+64947	-25670	I-11222599	+66470	-24193	2.7
2.8	I-20619537	+63374	-26926	I-14500269	+64984	-25422	I-08445985	+66560	-23940	2.8
2.9	I-18071140	+63332	-26650	I-11825792	+64987	-25174	I-05645431	+66611	-23731	2.9
3.0	I-15496092	+63260	-26367	I-09126140	+64958	-24929	I-02821146	+66629	-23521	3.0
3.1	I-12894678	+63162	-26087	I-06401559	+64900	-24687	I-99973340	+66614	-23313	3.1
3.2	I-10267177	+63036	-25811	I-03652292	+64815	-24446	I-97102221	+66571	-23106	3.2
3.3	I-07613865	+62892	-25539	I-00878578	+64704	-24206	I-94207996	+66500	-22900	3.3
3.4	I-04935013	+62726	-25271	I-98080657	+64570	-23974	I-91290871	+66404	-22697	3.4
3.5	I-02230890	+62540	-25007	I-95258761	+64416	-23741	I-88351048	+66288	-22495	3.5
3.6	I-99501760	+62336	-24746	I-92413124	+64242	-23519	I-85388730	+66142	-22296	3.6
3.7	I-96747884	+62117	-24490	I-89543975	+64049	-23286	I-82404116	+65980	-22097	3.7
3.8	I-93969517	+61883	-24238	I-86651541	+63840	-23062	I-79397406	+65800	-21902	3.8
3.9	I-91166913	+61636	-23989	I-83736045	+63616	-22842	I-76368793	+65602	-21708	3.9
4.0	I-88340319	+61376	-23746	I-80797706	+63378	-22626	I-73318472	+65369	-21517	4.0



p	u = 1.3			u = 1.4			u = 1.5			p
	log I'(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	log I'(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	log I'(u, p)	$\delta_u^2$ $\delta_u^4$	$\delta_p^2$ $\delta_p^4$	
-1.00	.00000000	0	0	.00000000	0	0	.00000000	0	0	-1.00
-.95	I.97350835	+406	+976690	I.97310530	+399	+952098	I.97270625	+394	+929057	-.95
-.90	I.95677360	+1374	+249214	I.95573158	+1351	+282990	I.95470307	+1329	+223115	-.90
-.85	I.94247099	+2700	+603758	I.94068776	+2051	+800355	I.93893104	+2071	+591309	-.85
-.80	I.92937334	+4264	+120496	I.92678864	+4150	+134470	I.92424574	+4097	+108579	-.80
-.75	I.91698059	+5966	+72712	I.91355550	+5864	+70545	I.91018906	+5744	+68631	-.75
-.70	I.90503827	+7813	+24259	I.90074356	+7651	+23595	I.89652836	+7493	+22547	-.70
-.65	I.89338693	+9704	+5966	I.88821058	+9605	+42120	I.88312929	+9307	+30598	-.65
-.60	I.88194017	+11634	+2996	I.87586683	+11397	+7651	I.86990747	+11161	+8929	-.60
-.55	I.87063087	+13659	+5505	I.86365223	+13307	+27396	I.85680667	+13036	+26163	-.55
-.50	I.85941410	+15326	+20135	I.85152483	+15221	+5251	I.84378775	+14917	+4997	-.50
-.45	I.84825722	+17439	+9704	I.83945422	+17128	+13923	I.83082246	+17691	+17725	-.45
-.40	I.83713591	+19373	+2996	I.82741782	+19018	+2965	I.81788985	+18662	+12102	-.40
-.35	I.82603161	+21266	+11634	I.81539842	+20975	+12915	I.80497398	+20491	+1709	-.35
-.30	I.81492991	+23106	+5966	I.80338268	+22708	+1813	I.79206254	+22304	+8188	-.30
-.25	I.80381945	+24915	+120496	I.79136010	+24506	+8720	I.77914581	+24087	+2513	-.25
-.20	I.79269113	+26689	+32901	I.77932225	+26265	+1527	I.76621606	+23826	+143	-.20
-.15	I.78153760	+28417	+832	I.76726235	+27989	+166	I.75326699	+27549	+1932	-.15
-.10	I.77035284	+30099	+576	I.75517482	+29669	+11	I.74029350	+29224	+126	-.10
-.05	I.75913190	+31735	+413	I.74305509	+31307	+2	I.72729134	+30939	+85	-.05
-.00	I.74787067	+33326	+260	I.73089933	+32901	+2	I.71425700	+32455	+250	-.00
.0	I.74787067	+33326	+84	I.73089933	+32901	+49	I.71425700	+32455	-9764	.0
.1	I.72521412	+36392	-17437	I.70646749	+35958	-15636	I.68808042	+35523	-14008	.1
.2	I.70236175	+39210	-902	I.68185929	+38535	-828	I.66174519	+36426	-757	.2
.3	I.67929813	+41574	-19584	I.65706027	+41389	-17636	I.63523781	+37449	-16868	.3
.4	I.65601215	+44357	-80	I.63205988	+44072	-656	I.60854834	+38481	-606	.4
.5	I.63249569	+46665	-29123	I.60685033	+46440	-19981	I.58166937	+39526	-17214	.5
.6	I.60874288	+48513	-4280	I.58142586	+48648	-3087	I.55459532	+40584	-354	.6
.7	I.58474946	+50799	-24566	I.55578221	+50704	-8327	I.52732199	+41645	-106	.7
.8	I.56051249	+52634	-68	I.52991631	+52613	-22226	I.49984625	+42709	-82	.8
.9	I.53602995	+54323	-22445	I.50382595	+54382	-68	I.47216576	+43781	+63	.9
1.0	I.51130060	+55986	-22596	I.47750962	+56020	-22596	I.44427885	+44841	-20643	1.0
1.1	I.48632378	+57417	-75	I.45096639	+57332	-22691	I.41618432	+45891	-41	1.1
1.2	I.46109931	+58628	-22742	I.42419573	+58925	-22742	I.38788140	+46941	-20838	1.2
1.3	I.43562739	+59826	-22758	I.39719749	+60208	-22758	I.35936966	+48001	-20889	1.3
1.4	I.40990851	+60917	-22744	I.36997181	+61880	-22744	I.33064892	+49071	-20900	1.4
1.5	I.38394343	+61909	-22707	I.34251906	+62455	-22707	I.30171924	+50141	-20894	1.5
1.6	I.35773310	+62907	-22691	I.31483981	+63435	-22691	I.27258087	+51211	-20570	1.6
1.7	I.33127864	+63617	-22650	I.28693478	+64286	-22650	I.24323419	+52281	-20530	1.7
1.8	I.30458130	+64344	-22491	I.25880485	+65184	-22491	I.21367974	+53351	-20777	1.8
1.9	I.27764244	+64995	-84	I.23045099	+65862	-22444	I.18391815	+54421	-20713	1.9
2.0	I.25046351	+65572	-22296	I.20187426	+66316	-22296	I.15395017	+55491	-20640	2.0
2.1	I.22304604	+66092	-82	I.17307582	+67101	-22296	I.12377660	+56561	-20558	2.1
2.2	I.19539161	+66529	-77	I.14405687	+67620	-22296	I.09339833	+57631	-20475	2.2
2.3	I.16750186	+66916	-22296	I.11481869	+68078	-22296	I.06281630	+58701	-20392	2.3
2.4	I.13937845	+67245	-22296	I.08536258	+68478	-22296	I.03203148	+59771	-20309	2.4
2.5	I.11102309	+67525	-22296	I.05568989	+68824	-22296	I.00104493	+60841	-20226	2.5
2.6	I.08243750	+67760	-22296	I.02580200	+69119	-22296	I.96985769	+61911	-19968	2.6
2.7	I.05362342	+67946	-22296	I.99570032	+69366	-22296	I.93847088	+62981	-19908	2.7
2.8	I.02458261	+68090	-22296	I.96538626	+69569	-22296	I.90688561	+64051	-19846	2.8
2.9	I.99531682	+68195	-22296	I.93486127	+69739	-22296	I.87510302	+65121	-19783	2.9
3.0	I.96582781	+68263	-22296	I.90412679	+69852	-22296	I.84312428	+66191	-19720	3.0
3.1	I.93611736	+68296	-22296	I.87318428	+69935	-22296	I.81095057	+67261	-19657	3.1
3.2	I.90618721	+68298	-22296	I.84203520	+69985	-22296	I.77858307	+68331	-19594	3.2
3.3	I.87603914	+68270	-22296	I.81068102	+70005	-22296	I.74602298	+69401	-19531	3.3
3.4	I.84567488	+68216	-22296	I.77912321	+69979	-22296	I.71327150	+70471	-19468	3.4
3.5	I.81509618	+68134	-22296	I.74736322	+69908	-22296	I.68032985	+71541	-19405	3.5
3.6	I.78430477	+68028	-22296	I.71540253	+69832	-22296	I.64719923	+72611	-19342	3.6
3.7	I.75330238	+67901	-22296	I.68324260	+69694	-22296	I.61388087	+73681	-19279	3.7
3.8	I.72209070	+67755	-22296	I.65088488	+69592	-22296	I.58037598	+74751	-19216	3.8
3.9	I.69067144	+67586	-22296	I.61833081	+69509	-22296	I.54668577	+75821	-19153	3.9
4.0	I.65904627	+67402	-22296	I.58558183	+69407	-22296	I.51281147	+76891	-19090	4.0

p	u = 1.0				u = 1.1				u = 1.2				
	log I'(u, p)	δ <sub>u</sub> <sup>2</sup> δ <sub>u</sub> <sup>4</sup>	δ <sub>p</sub> <sup>2</sup> δ <sub>p</sub> <sup>4</sup>		log I'(u, p)	δ <sub>u</sub> <sup>2</sup> δ <sub>u</sub> <sup>4</sup>	δ <sub>p</sub> <sup>2</sup> δ <sub>p</sub> <sup>4</sup>		log I'(u, p)	δ <sub>u</sub> <sup>2</sup> δ <sub>u</sub> <sup>4</sup>	δ <sub>p</sub> <sup>2</sup> δ <sub>p</sub> <sup>4</sup>		p
4.0	2.88340319	+61376 +16	-23745 -4		2.80797706	+63378 +9	-23525 -4		2.73318472	+66389 +1	-21517 -4		4.0
4.1	2.85489980	+61108 +19	-23305 -4		2.77836743	+63127 +13	-22411 -4		2.70246634	+65162 +5	-21328 -4		4.1
4.2	2.82616136	+60826 +22	-23268 -4		2.74853369	+62865 +17	-22200 -4		2.67153467	+64921 +9	-21141 -4		4.2
4.3	2.79719024	+60538 +25	-23086 -4		2.71847795	+62592 +19	-21991 -4		2.64039159	+64666 +11	-20957 -4		4.3
4.4	2.76798876	+60238 +29	-22807 -4		2.68820230	+62310 +22	-21787 -4		2.60903894	+64403 +14	-20775 -4		4.4
4.5	2.73855921	+59934 +32	-22582 -4		2.65770879	+62019 +24	-21585 -4		2.57747855	+64128 +19	-20595 -4		4.5
4.6	2.70890384	+59622 +34	-22361 -4		2.62699942	+61719 +28	-21386 -4		2.54571219	+63844 +21	-20418 -4		4.6
4.7	2.67902487	+59305 +37	-22143 -4		2.59607620	+61413 +31	-21190 -4		2.51374167	+63551 +24	-20243 -4		4.7
4.8	2.64892446	+58982 +40	-21929 -4		2.56494109	+61105 +33	-20996 -4		2.48156871	+63251 +28	-20070 -4		4.8
4.9	2.61860477	+58655 +42	-21718 -4		2.53359601	+60781 +36	-20806 -4		2.44919506	+62943 +30	-19899 -4		4.9
5.0	2.58806789	+58324 +44	-21512 -4		2.50204287	+60457 +39	-20619 -4		2.41662242	+62629 +33	-19731 -4		5.0
5.1	2.55731590	+57999 +46	-21308 -4		2.47028353	+60129 +41	-20434 -4		2.38385246	+62310 +36	-19565 -4		5.1
5.2	2.52635083	+57672 +48	-21108 -4		2.43831986	+59797 +44	-20253 -4		2.35088685	+61985 +38	-19401 -4		5.2
5.3	2.49517467	+57312 +51	-20911 -4		2.40615365	+59451 +45	-20074 -4		2.31772724	+61656 +41	-19240 -4		5.3
5.4	2.46378941	+56970 +52	-20717 -4		2.37378671	+59122 +48	-19898 -4		2.28437522	+61323 +43	-19080 -4		5.4
5.5	2.43219698	+56628 +54	-20527 -4		2.34122079	+58780 +50	-19724 -4		2.25083240	+60986 +46	-18923 -4		5.5
5.6	2.40039928	+56291 +56	-20339 -4		2.30845763	+58437 +52	-19553 -4		2.21710034	+60648 +48	-18766 -4		5.6
5.7	2.36839819	+55934 +58	-20155 -4		2.27549894	+58092 +54	-19384 -4		2.18318061	+60303 +50	-18616 -4		5.7
5.8	2.33619554	+55587 +59	-19974 -4		2.24234640	+57745 +56	-19219 -4		2.14907471	+59958 +52	-18465 -4		5.8
5.9	2.30379315	+55240 +61	-19796 -4		2.20900168	+57396 +58	-19055 -4		2.11478417	+59611 +54	-18316 -4		5.9
6.0	2.27119281	+54899 +63	-19620 -4		2.17546641	+57047 +60	-18894 -4		2.08031047	+59263 +56	-18169 -4		6.0
6.1	2.23839627	+54544 +64	-19447 -4		2.14174218	+56698 +62	-18736 -4		2.04565508	+58918 +58	-18025 -4		6.1
6.2	2.20540525	+54197 +65	-19276 -4		2.10783061	+56348 +63	-18580 -4		2.01081944	+58569 +60	-17882 -4		6.2
6.3	2.17222146	+53851 +67	-19110 -4		2.07373323	+55998 +65	-18426 -4		1.97580498	+58211 +62	-17741 -4		6.3
6.4	2.13884656	+53505 +68	-18946 -4		2.03945159	+55648 +66	-18274 -4		1.94061311	+57859 +63	-17592 -4		6.4
6.5	2.10528220	+53159 +69	-18784 -4		2.00498721	+55299 +67	-18125 -4		1.90524521	+57507 +65	-17446 -4		6.5
6.6	2.07153001	+52815 +70	-18625 -4		1.97034158	+54951 +69	-17978 -4		1.86970266	+57155 +66	-17300 -4		6.6
6.7	2.03759156	+52472 +71	-18468 -4		1.93551617	+54603 +70	-17833 -4		1.83398680	+56803 +68	-17157 -4		6.7
6.8	2.00346845	+52131 +72	-18313 -4		1.90051243	+54256 +71	-17689 -4		1.79809897	+56452 +69	-17016 -4		6.8
6.9	1.96916219	+51791 +73	-18161 -4		1.86533179	+53910 +72	-17549 -4		1.76204048	+56101 +70	-16876 -4		6.9
7.0	1.93467433	+51452 +74	-18011 -4		1.82997566	+53565 +73	-17411 -4		1.72581263	+55751 +71	-16808 -4		7.0
7.1	1.90006635	+51116 +75	-17864 -4		1.79441542	+53222 +74	-17274 -4		1.68941670	+55402 +72	-16652 -4		7.1
7.2	1.86515973	+50781 +76	-17719 -4		1.75874244	+52880 +75	-17139 -4		1.65285394	+55054 +74	-16558 -4		7.2
7.3	1.83013593	+50448 +76	-17576 -4		1.72286807	+52539 +77	-17007 -4		1.61612560	+54707 +74	-16435 -4		7.3
7.4	1.79493636	+50115 +77	-17435 -4		1.68682363	+52201 +77	-16875 -4		1.57923292	+54362 +76	-16314 -4		7.4
7.5	1.75956244	+49787 +78	-17296 -4		1.65061045	+51864 +77	-16745 -4		1.54217709	+54018 +77	-16194 -4		7.5
7.6	1.72401556	+49466 +79	-17160 -4		1.61422980	+51529 +78	-16619 -4		1.50495933	+53675 +78	-16076 -4		7.6
7.7	1.68829708	+49136 +79	-17025 -4		1.57768296	+51195 +79	-16493 -4		1.46758080	+53334 +78	-15960 -4		7.7
7.8	1.65240835	+48813 +79	-16892 -4		1.54097119	+50864 +80	-16370 -4		1.43004267	+52995 +79	-15845 -4		7.8
7.9	1.61635069	+48493 +80	-16762 -4		1.50409571	+50535 +80	-16248 -4		1.39234609	+52658 +80	-15732 -4		7.9
8.0	1.58012542	+48175 +80	-16633 -4		1.46705777	+50208 +81	-16127 -4		1.35449219	+52323 +81	-15620 -4		8.0
8.1	1.54373381	+47859 +80	-16508 -4		1.42985854	+49883 +81	-16009 -4		1.31648210	+51989 +81	-15509 -4		8.1
8.2	1.50717715	+47548 +80	-16381 -4		1.39249923	+49561 +81	-15892 -4		1.27831692	+51658 +82	-15400 -4		8.2
8.3	1.47045667	+47235 +81	-16258 -4		1.35498100	+49241 +82	-15778 -4		1.23999773	+51328 +82	-15288 -4		8.3
8.4	1.43357362	+46926 +82	-16138 -4		1.31730501	+48923 +82	-15662 -4		1.20152562	+51001 +83	-15186 -4		8.4
8.5	1.39652920	+46620 +82	-16016 -4		1.27947239	+48607 +83	-15550 -4		1.16290164	+50678 +84	-15082 -4		8.5
8.6	1.35932462	+46317 +82	-15898 -4		1.24148427	+48293 +83	-15440 -4		1.12412685	+50353 +84	-14978 -4		8.6
8.7	1.32196106	+46015 +82	-15782 -4		1.20334175	+47982 +83	-15330 -4		1.08520227	+50032 +85	-14876 -4		8.7
8.8	1.28443968	+45717 +82	-15667 -4		1.16504594	+47674 +83	-15222 -4		1.04612894	+49714 +85	-14775 -4		8.8
8.9	1.24676163	+45421 +82	-15554 -4		1.12659791	+47368 +84	-15118 -4		1.00690786	+49398 +85	-14675 -4		8.9
9.0	1.20892804	+45127 +82	-15442 -4		1.08799871	+47064 +84	-15011 -4		0.96754003	+49084 +86	-14577 -4		9.0
9.1	1.17094003	+44836 +82	-15332 -4		1.04924941	+46763 +84	-14907 -4		0.92802642	+48773 +86	-14480 -4		9.1
9.2	1.13279870	+44548 +82	-15223 -4		1.01035105	+46464 +85	-14805 -4		0.88836803	+48464 +86	-14384 -4		9.2
9.3	1.09450514	+44262 +82	-15116 -4		0.97130463	+46167 +85	-14704 -4		0.84856579	+48157 +86	-14289 -4		9.3
9.4	1.05606042	+43979 +82	-15010 -4		0.93211118	+45873 +85	-14604 -4		0.80862067	+47858 +87	-14195 -4		9.4
9.5	1.01746559	+43698 +82	-14906 -4		0.89277169	+45582 +85	-14508 -4		0.76853360	+47551 +87	-14108 -4		9.5
9.6	0.97872171	+43419 +83	-14803 -4		0.85328714	+45293 +85	-14409 -4		0.72830549	+47252 +87	-14012 -4		9.6
9.7	0.93982980	+43143 +83	-14702 -4		0.81365850	+45007 +85	-14312 -4		0.68793728	+46955 +87	-13921 -4		9.7
9.8	0.90079087	+42870 +83	-14601 -4		0.77388674	+44723 +85	-14218 -4		0.64742985	+46660 +87	-13832 -4		9.8
9.9	0.86160592	+42599 +82	-14503 -4		0.73397281	+44441 +85	-14124 -4		0.60678410	+46368 +87	-13744 -4		9.9
10.0	0.82227596	+42330 +82	-14405 -4		0.69391763	+44162 +85	-14032 -4		0.56600091	+46078 +87	-13657 -4		10.0

p	u = 1.3				u = 1.4				u = 1.5				p
	log I' (u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_u^4$	log I' (u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_u^4$	log I' (u, p)	$\delta_u^2$	$\delta_p^2$	$\delta_u^4$	
4.0	2.65904627	+67492	-20424		2.58558183	+69497	-19347		2.51281147	+71395	-18289		4.0
4.1	2.62721686	+67200	-20289		2.55263939	+69236	-19205		2.47875427	+71258	-18168		4.1
4.2	2.59518486	+66984	-20096		2.51950489	+69048	-19063		2.44451540	+71103	-18048		4.2
4.3	2.56295191	+66754	-19834		2.48617976	+68844	-18923		2.41009606	+70929	-17928		4.3
4.4	2.53051961	+66511	-19774		2.45266539	+68626	-18784		2.37549744	+70740	-17808		4.4
4.5	2.49788959	+66266	-19615		2.41896319	+68394	-18646		2.34072073	+70534	-17699		4.5
4.6	2.46506341	+65999	-19458		2.38507452	+68150	-18509		2.30576713	+70315	-17571		4.6
4.7	2.43204264	+65714	-19303		2.35100076	+67894	-18373		2.27063782	+70083	-17454		4.7
4.8	2.39882884	+65429	-19156		2.31674326	+67628	-18239		2.23533396	+69838	-17337		4.8
4.9	2.36542354	+65135	-18999		2.28230338	+67351	-18106		2.19985673	+69582	-17222		4.9
5.0	2.33182826	+64834	-18849		2.24768244	+67066	-17973		2.16420729	+69315	-17106		5.0
5.1	2.29804448	+64528	-18701		2.21288177	+66772	-17843		2.12838677	+69039	-16992		5.1
5.2	2.26407370	+64212	-18554		2.17790267	+66471	-17713		2.09239634	+68754	-16870		5.2
5.3	2.22991738	+63892	-18410		2.14274644	+66182	-17585		2.05623712	+68460	-16766		5.3
5.4	2.19557696	+63566	-18267		2.10741436	+65847	-17456		2.01991023	+68159	-16655		5.4
5.5	2.16105386	+63236	-18126		2.07190769	+65527	-17332		1.98341679	+67851	-16544		5.5
5.6	2.12634951	+62902	-17986		2.03622771	+65202	-17208		1.94675791	+67537	-16434		5.6
5.7	2.09146530	+62564	-17849		2.00037564	+64871	-17085		1.90993469	+67216	-16326		5.7
5.8	2.05640260	+62224	-17713		1.96435272	+64537	-16963		1.87294821	+66891	-16218		5.8
5.9	2.02116277	+61885	-17578		1.92816017	+64198	-16843		1.83579956	+66561	-16111		5.9
6.0	1.98574717	+61534	-17446		1.89179920	+63857	-16724		1.79848980	+66226	-16005		6.0
6.1	1.95015710	+61186	-17314		1.85527098	+63512	-16606		1.76101998	+65888	-15896		6.1
6.2	1.91439390	+60836	-17185		1.81857671	+63165	-16489		1.72339117	+65548	-15796		6.2
6.3	1.87845884	+60485	-17057		1.78171754	+62816	-16374		1.68560441	+65201	-15693		6.3
6.4	1.84235321	+60132	-16931		1.74469464	+62465	-16260		1.64766071	+64853	-15591		6.4
6.5	1.80607828	+59779	-16806		1.70750914	+62112	-16147		1.60956111	+64509	-15489		6.5
6.6	1.76963529	+59425	-16683		1.67016216	+61758	-16036		1.57130662	+64151	-15389		6.6
6.7	1.73302547	+59071	-16561		1.63265483	+61403	-15925		1.53289823	+63797	-15290		6.7
6.8	1.69625003	+58716	-16441		1.59498825	+61047	-15816		1.49433695	+63441	-15192		6.8
6.9	1.65931019	+58362	-16322		1.55716351	+60691	-15706		1.45562374	+63085	-15094		6.9
7.0	1.62220712	+58008	-16206		1.51918168	+60335	-15602		1.41675959	+62737	-14998		7.0
7.1	1.58494199	+57655	-16089		1.48104384	+59978	-15496		1.37774546	+62389	-14903		7.1
7.2	1.54751598	+57302	-15975		1.44275103	+59622	-15392		1.33858231	+62011	-14808		7.2
7.3	1.50993021	+56950	-15862		1.40430431	+59265	-15289		1.29927107	+61632	-14715		7.3
7.4	1.47218581	+56599	-15751		1.36570470	+58910	-15187		1.25981268	+61253	-14622		7.4
7.5	1.43428391	+56249	-15641		1.32695322	+58554	-15086		1.22020807	+60894	-14531		7.5
7.6	1.39622560	+55900	-15532		1.28805088	+58200	-14986		1.18045815	+60537	-14440		7.6
7.7	1.35801197	+55552	-15424		1.24899867	+57847	-14886		1.14056384	+60181	-14350		7.7
7.8	1.31964410	+55206	-15316		1.20979759	+57495	-14790		1.10052602	+59826	-14261		7.8
7.9	1.28112304	+54861	-15214		1.17044861	+57143	-14694		1.06034560	+59476	-14173		7.9
8.0	1.24244985	+54518	-15110		1.13095268	+56793	-14599		1.02002345	+59128	-14086		8.0
8.1	1.20362555	+54176	-15008		1.09131077	+56446	-14504		0.97956043	+58783	-14000		8.1
8.2	1.16465118	+53837	-14907		1.05152382	+56098	-14411		0.93895743	+58440	-13914		8.2
8.3	1.12552775	+53499	-14807		1.01159275	+55752	-14319		0.89821527	+58097	-13830		8.3
8.4	1.08625624	+53163	-14708		0.97151849	+55408	-14229		0.85733482	+57756	-13746		8.4
8.5	1.04683765	+52829	-14611		0.93130195	+55066	-14138		0.81631691	+57417	-13663		8.5
8.6	1.00727295	+52497	-14514		0.89094403	+54726	-14049		0.77516237	+57081	-13581		8.6
8.7	0.96756311	+52167	-14419		0.85044563	+54387	-13961		0.73387201	+56749	-13500		8.7
8.8	0.92770908	+51839	-14325		0.80980761	+54050	-13874		0.69244665	+56424	-13420		8.8
8.9	0.88771179	+51514	-14232		0.76903087	+53715	-13787		0.65088709	+56104	-13341		8.9
9.0	0.84757218	+51190	-14141		0.72811624	+53383	-13702		0.60919413	+55786	-13262		9.0
9.1	0.80729117	+50869	-14056		0.68706460	+53052	-13618		0.56736855	+55471	-13184		9.1
9.2	0.76686965	+50550	-13960		0.64587677	+52724	-13535		0.52541113	+55161	-13107		9.2
9.3	0.72630853	+50233	-13872		0.60455360	+52397	-13452		0.48332265	+54856	-13031		9.3
9.4	0.68560870	+49919	-13784		0.56309591	+52073	-13371		0.44110386	+54556	-12955		9.4
9.5	0.64477102	+49607	-13698		0.52150452	+51751	-13290		0.39875552	+54264	-12880		9.5
9.6	0.60379637	+49297	-13613		0.47978022	+51431	-13210		0.35627838	+53981	-12806		9.6
9.7	0.56268560	+48990	-13527		0.43792382	+51114	-13131		0.31367318	+53707	-12733		9.7
9.8	0.52143956	+48685	-13444		0.39593612	+50798	-13053		0.27094066	+53441	-12666		9.8
9.9	0.48005908	+48383	-13361		0.35381788	+50485	-12976		0.22808153	+53183	-12599		9.9
10.0	0.43854499	+48083	-13279		0.31156988	+50175	-12899		0.18509652	+52935	-12517		10.0



TABLE IV  
CONSTANTS OF THE SKEW-CURVE  $y = y_0 x^p e^{-x}$

$$\frac{1}{\sqrt{2\pi}} = .398,942,2804$$

$$\log \frac{1}{\sqrt{2\pi}} = \bar{1}.600,910,0658$$

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
-1.00	0.0000000	$\infty$	$-\infty$	0.0000000	$\infty$	$\infty$	-1.00
- .95	.2236068	4.4721359	-4.2485292	.0311788	80.0000	123.0000	- .95
- .90	.3162278	3.1622777	-2.8460499	.0898889	40.0000	63.0000	- .90
- .85	.3872983	2.5819889	-2.1946906	.1672555	26.6667	43.0000	- .85
- .80	.4472136	2.2360680	-1.7888544	.2591708	20.0000	33.0000	- .80
- .75	.5000000	2.0000000	-1.5000000	.3622545	16.0000	27.0000	- .75
- .70	.5477226	1.8257419	-1.2780193	.4732593	13.3333	23.0000	- .70
- .65	.5916079	1.6903085	-1.0987005	.5889091	11.4286	20.1429	- .65
- .60	.6324555	1.5811388	-.9486833	.7058674	10.0000	18.0000	- .60
- .55	.6708203	1.4907120	-.8198916	.8207550	8.8889	16.3333	- .55
- .50	.7071068	1.4142136	-.7071068	.9301914	8.0000	15.0000	- .50
- .45	.7416198	1.3483997	-.6067799	1.0308453	7.2727	13.9091	- .45
- .40	.7745967	1.2909945	-.5163978	1.1194860	6.6667	13.0000	- .40
- .35	.8062257	1.2403473	-.4341216	1.1930274	6.1538	12.2308	- .35
- .30	.8366600	1.1952286	-.3585686	1.2485553	5.7143	11.5714	- .30
- .25	.8660254	1.1547005	-.2886751	1.2833215	5.3333	11.0000	- .25
- .20	.8944272	1.1180340	-.2236068	1.2946704	5.0000	10.5000	- .20
- .15	.9219544	1.0846523	-.1626978	1.2798123	4.7059	10.0588	- .15
- .10	.9486833	1.0540926	-.1054093	1.2351618	4.4444	9.6667	- .10
- .05	.9746794	1.0259784	-.0512989	1.1539273	4.2105	9.3158	- .05
0.0	1.0000000	1.0000000	0.0000000	1.0000000	4.0000	9.0000	0.0
0.1	1.0488088	.9534626	.0953462	.7923667	3.6364	8.4545	0.1
0.2	1.0954451	.9128709	.1825742	.7079706	3.3333	8.0000	0.2
0.3	1.1401754	.8770580	.2631174	.6558423	3.0769	7.6154	0.3
0.4	1.1832160	.8451543	.3380617	.6196086	2.8571	7.2857	0.4
0.5	1.2247449	.8164966	.4082483	.5927048	2.6667	7.0000	0.5
0.6	1.2649111	.7905694	.4743417	.5718367	2.5000	6.7500	0.6
0.7	1.3038405	.7669650	.5368755	.5551313	2.3529	6.5294	0.7
0.8	1.3416408	.7453560	.5962848	.5414321	2.2222	6.3333	0.8
0.9	1.3784049	.7254763	.6529286	.5299815	2.1053	6.1579	0.9
1.0	1.4142136	.7071068	.7071068	.5202601	2.0000	6.0000	1.0
1.1	1.4491377	.6900656	.7590721	.5118990	1.9048	5.8571	1.1
1.2	1.4832397	.6741999	.8090398	.5046284	1.8182	5.7273	1.2
1.3	1.5165751	.6593805	.8571946	.4982460	1.7391	5.6087	1.3
1.4	1.5491933	.6454972	.9036961	.4925970	1.6667	5.5000	1.4
1.5	1.5811388	.6324555	.9486833	.4875610	1.6000	5.4000	1.5
1.6	1.6124516	.6201737	.9922779	.4830426	1.5385	5.3077	1.6
1.7	1.6431677	.6085806	1.0345871	.4789655	1.4815	5.2222	1.7
1.8	1.6733200	.5976143	1.0757057	.4752677	1.4286	5.1429	1.8
1.9	1.7029386	.5872202	1.1157184	.4718983	1.3793	5.0690	1.9
2.0	1.7320508	.5773503	1.1547005	.4688152	1.3333	5.0000	2.0
2.1	1.7606817	.5679618	1.1927198	.4659832	1.2903	4.9355	2.1
2.2	1.7888544	.5590170	1.2298374	.4633729	1.2500	4.8750	2.2
2.3	1.8165902	.5504819	1.2661083	.4609589	1.2121	4.8182	2.3
2.4	1.8439089	.5423261	1.3015827	.4587200	1.1765	4.7647	2.4
2.5	1.8708287	.5345225	1.3363062	.4566376	1.1429	4.7143	2.5
2.6	1.8973666	.5270463	1.3703203	.4546958	1.1111	4.6667	2.6
2.7	1.9235384	.5198752	1.4036632	.4528809	1.0811	4.6216	2.7
2.8	1.9493589	.5129892	1.4363697	.4511807	1.0526	4.5789	2.8
2.9	1.9748418	.5063697	1.4684721	.4495847	1.0256	4.5385	2.9
3.0	2.0000000	.5000000	1.5000000	.4480836	1.0000	4.5000	3.0
3.1	2.0248457	.4938648	1.5309809	.4466691	.9756	4.4634	3.1
3.2	2.0493902	.4879500	1.5614401	.4453340	.9524	4.4286	3.2
3.3	2.0736441	.4822428	1.5914013	.4440716	.9302	4.3953	3.3
3.4	2.0976177	.4767313	1.6208864	.4428763	.9091	4.3636	3.4
3.5	2.1213203	.4714045	1.6499158	.4417428	.8889	4.3333	3.5
3.6	2.1447611	.4662524	1.6785087	.4406664	.8696	4.3043	3.6
3.7	2.1679483	.4612656	1.7066827	.4396429	.8511	4.2766	3.7
3.8	2.1908902	.4564355	1.7344548	.4386685	.8333	4.2500	3.8
3.9	2.2135944	.4517540	1.7618404	.4377398	.8163	4.2245	3.9
4.0	2.2360680	.4472136	1.7888544	.4368535	.8000	4.2000	4.0

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
4.0	2.2360680	.4472136	1.7888544	.4368535	.8000	4.2000	4.0
4.1	2.2583180	.4428074	1.8155105	.4360069	.7843	4.1765	4.1
4.2	2.2803508	.4385290	1.8418218	.4351973	.7692	4.1538	4.2
4.3	2.3021729	.4343722	1.8678007	.4344223	.7547	4.1321	4.3
4.4	2.3237900	.4303315	1.8934585	.4336799	.7407	4.1111	4.4
4.5	2.3452079	.4264014	1.9188064	.4329679	.7273	4.0909	4.5
4.6	2.3664319	.4225771	1.9438548	.4322846	.7143	4.0714	4.6
4.7	2.3874673	.4188539	1.9686134	.4316282	.7018	4.0526	4.7
4.8	2.4083189	.4152274	1.9930915	.4309971	.6897	4.0345	4.8
4.9	2.4289916	.4116935	2.0172981	.4303900	.6780	4.0169	4.9
5.0	2.4494897	.4082483	2.0412415	.4298055	.6667	4.0000	5.0
5.1	2.4698178	.4048882	2.0649296	.4292424	.6557	3.9836	5.1
5.2	2.4899799	.4016097	2.0883703	.4286994	.6452	3.9677	5.2
5.3	2.5099801	.3984095	2.1115705	.4281756	.6349	3.9524	5.3
5.4	2.5298221	.3952847	2.1345374	.4276699	.6250	3.9375	5.4
5.5	2.5495098	.3922323	2.1572775	.4271814	.6154	3.9231	5.5
5.6	2.5690465	.3892495	2.1797970	.4267093	.6061	3.9091	5.6
5.7	2.5884358	.3863337	2.2021021	.4262527	.5970	3.8955	5.7
5.8	2.6076810	.3834825	2.2241985	.4258109	.5882	3.8824	5.8
5.9	2.6267851	.3806935	2.2460916	.4253832	.5797	3.8696	5.9
6.0	2.6457513	.3779645	2.2677868	.4249689	.5714	3.8571	6.0
6.1	2.6645825	.3752933	2.2892892	.4245674	.5634	3.8451	6.1
6.2	2.6832816	.3726780	2.3106036	.4241781	.5556	3.8333	6.2
6.3	2.7018512	.3701166	2.3317346	.4238004	.5479	3.8219	6.3
6.4	2.7202941	.3676073	2.3526868	.4234339	.5405	3.8108	6.4
6.5	2.7386128	.3651484	2.3734644	.4230781	.5333	3.8000	6.5
6.6	2.7568098	.3627381	2.3940716	.4227324	.5263	3.7895	6.6
6.7	2.7748874	.3603750	2.4145124	.4223965	.5195	3.7792	6.7
6.8	2.7928480	.3580574	2.4347906	.4220700	.5128	3.7692	6.8
6.9	2.8106939	.3557840	2.4549098	.4217525	.5063	3.7595	6.9
7.0	2.8284271	.3535534	2.4748737	.4214435	.5000	3.7500	7.0
7.1	2.8460499	.3513642	2.4946857	.4211428	.4938	3.7407	7.1
7.2	2.8635642	.3492151	2.5143491	.4208501	.4878	3.7317	7.2
7.3	2.8809721	.3471051	2.5338670	.4205649	.4819	3.7229	7.3
7.4	2.8982753	.3450328	2.5532426	.4202871	.4762	3.7143	7.4
7.5	2.9154759	.3429972	2.5724788	.4200164	.4706	3.7059	7.5
7.6	2.9325757	.3409972	2.5915785	.4197524	.4651	3.6977	7.6
7.7	2.9495762	.3390318	2.6105445	.4194950	.4598	3.6897	7.7
7.8	2.9664794	.3370999	2.6293795	.4192439	.4545	3.6818	7.8
7.9	2.9832868	.3352008	2.6480860	.4189988	.4494	3.6742	7.9
8.0	3.0000000	.3333333	2.6666667	.4187596	.4444	3.6667	8.0
8.1	3.0166206	.3314968	2.6851239	.4185260	.4396	3.6593	8.1
8.2	3.0331502	.3296902	2.7034599	.4182979	.4348	3.6522	8.2
8.3	3.0495901	.3279129	2.7216772	.4180750	.4301	3.6452	8.3
8.4	3.0659419	.3261640	2.7397779	.4178572	.4255	3.6383	8.4
8.5	3.0822070	.3244428	2.7577642	.4176443	.4211	3.6316	8.5
8.6	3.0983867	.3227486	2.7756381	.4174362	.4167	3.6250	8.6
8.7	3.1144823	.3210806	2.7934017	.4172326	.4124	3.6186	8.7
8.8	3.1304952	.3194383	2.81110569	.4170335	.4082	3.6122	8.8
8.9	3.1464265	.3178209	2.8286057	.4168386	.4040	3.6061	8.9
9.0	3.1622777	.3162278	2.8460499	.4166479	.4000	3.6000	9.0
9.1	3.1780497	.3146584	2.8633913	.4164612	.3960	3.5941	9.1
9.2	3.1937439	.3131121	2.8806317	.4162785	.3922	3.5882	9.2
9.3	3.2093613	.3115885	2.8977728	.4160995	.3883	3.5825	9.3
9.4	3.2249031	.3100868	2.9148163	.4159241	.3846	3.5769	9.4
9.5	3.2403703	.3086067	2.9317636	.4157523	.3810	3.5714	9.5
9.6	3.2557641	.3071476	2.9486166	.4155840	.3774	3.5660	9.6
9.7	3.2710854	.3057089	2.9653765	.4154190	.3738	3.5607	9.7
9.8	3.2863353	.3042903	2.9820450	.4152572	.3704	3.5556	9.8
9.9	3.3015148	.3028913	2.9986235	.4150986	.3670	3.5505	9.9
10.0	3.3166248	.3015113	3.0151134	.4149430	.3636	3.5455	10.0

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
10.0	3.3166248	.3015113	3.0151134	.4149430	.3636	3.5455	10.0
10.1	3.3316662	.3001501	3.0315161	.4147904	.3604	3.5405	10.1
10.2	3.3466401	.2988072	3.0478330	.4146407	.3571	3.5357	10.2
10.3	3.3615473	.2974821	3.0640652	.4144938	.3540	3.5310	10.3
10.4	3.3763886	.2961744	3.0802142	.4143496	.3509	3.5263	10.4
10.5	3.3911650	.2948839	3.0962811	.4142081	.3478	3.5217	10.5
10.6	3.4058773	.2936101	3.1122672	.4140691	.3448	3.5172	10.6
10.7	3.4205263	.2923527	3.1281736	.4139327	.3419	3.5128	10.7
10.8	3.4351128	.2911113	3.1440016	.4137987	.3390	3.5085	10.8
10.9	3.4496377	.2898855	3.1597521	.4136671	.3361	3.5042	10.9
11.0	3.4641016	.2886751	3.1754265	.4135377	.3333	3.5000	11.0
11.1	3.4785054	.2874798	3.1910256	.4134107	.3306	3.4959	11.1
11.2	3.4928498	.2862992	3.2065507	.4132858	.3279	3.4918	11.2
11.3	3.5071356	.2851310	3.2220026	.4131630	.3252	3.4878	11.3
11.4	3.5213634	.2839809	3.2373825	.4130424	.3226	3.4839	11.4
11.5	3.5355339	.2828427	3.2526912	.4129238	.3200	3.4800	11.5
11.6	3.5496479	.2817181	3.2679298	.4128071	.3175	3.4762	11.6
11.7	3.5637059	.2806068	3.2830992	.4126924	.3150	3.4724	11.7
11.8	3.5777088	.2795085	3.2982003	.4125796	.3125	3.4687	11.8
11.9	3.5916570	.2784230	3.3132340	.4124686	.3101	3.4651	11.9
12.0	3.6055513	.2773501	3.3282012	.4123594	.3077	3.4615	12.0
12.1	3.6193922	.2762895	3.3431027	.4122519	.3053	3.4580	12.1
12.2	3.6331804	.2752409	3.3579395	.4121462	.3030	3.4545	12.2
12.3	3.6469165	.2742042	3.3727123	.4120421	.3008	3.4511	12.3
12.4	3.6606010	.2731792	3.3874219	.4119397	.2985	3.4478	12.4
12.5	3.6742346	.2721655	3.4020691	.4118388	.2963	3.4444	12.5
12.6	3.6878178	.2711631	3.4166547	.4117395	.2941	3.4412	12.6
12.7	3.7013511	.2701716	3.4311795	.4116417	.2920	3.4380	12.7
12.8	3.7148351	.2691910	3.4456442	.4115454	.2899	3.4348	12.8
12.9	3.7282704	.2682209	3.4600495	.4114506	.2878	3.4317	12.9
13.0	3.7416574	.2672612	3.4743961	.4113571	.2857	3.4286	13.0
13.1	3.7549967	.2663118	3.4886848	.4112651	.2837	3.4255	13.1
13.2	3.7682887	.2653724	3.5029163	.4111744	.2817	3.4225	13.2
13.3	3.7815341	.2644429	3.5170911	.4110850	.2797	3.4196	13.3
13.4	3.7947332	.2635231	3.5312101	.4109969	.2778	3.4167	13.4
13.5	3.8078866	.2626129	3.5452737	.4109101	.2759	3.4138	13.5
13.6	3.8209946	.2617120	3.5592827	.4108246	.2740	3.4110	13.6
13.7	3.8340579	.2608203	3.5732376	.4107402	.2721	3.4082	13.7
13.8	3.8470768	.2599376	3.5871392	.4106571	.2703	3.4054	13.8
13.9	3.8600518	.2590639	3.6009879	.4105751	.2685	3.4027	13.9
14.0	3.8729833	.2581989	3.6147845	.4104942	.2667	3.4000	14.0
14.1	3.8858718	.2573425	3.6285293	.4104145	.2649	3.3974	14.1
14.2	3.8987177	.2564946	3.6422232	.4103358	.2632	3.3947	14.2
14.3	3.9115214	.2556550	3.6558664	.4102583	.2614	3.3922	14.3
14.4	3.9242834	.2548236	3.6694598	.4101817	.2597	3.3896	14.4
14.5	3.9370039	.2540003	3.6830037	.4101062	.2581	3.3871	14.5
14.6	3.9496835	.2531848	3.6964987	.4100318	.2564	3.3846	14.6
14.7	3.9623226	.2523772	3.7099453	.4099583	.2548	3.3822	14.7
14.8	3.9749214	.2515773	3.7233441	.4098857	.2532	3.3797	14.8
14.9	3.9874804	.2507849	3.7366955	.4098141	.2516	3.3774	14.9
15.0	4.0000000	.2500000	3.7500000	.4097435	.2500	3.3750	15.0
15.1	4.0124805	.2492224	3.7632581	.4096737	.2484	3.3727	15.1
15.2	4.0249224	.2484520	3.7764704	.4096049	.2469	3.3704	15.2
15.3	4.0373258	.2476887	3.7896371	.4095369	.2454	3.3681	15.3
15.4	4.0496913	.2469324	3.8027590	.4094698	.2439	3.3659	15.4
15.5	4.0620192	.2461830	3.8158362	.4094036	.2424	3.3636	15.5
15.6	4.0743098	.2454403	3.8288694	.4093381	.2410	3.3614	15.6
15.7	4.0865633	.2447044	3.8418590	.4092735	.2395	3.3593	15.7
15.8	4.0987803	.2439750	3.8548053	.4092097	.2381	3.3571	15.8
15.9	4.1109610	.2432521	3.8677088	.4091467	.2367	3.3550	15.9
16.0	4.1231056	.2425356	3.8805700	.4090844	.2353	3.3529	16.0



$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$\chi = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
16.0	4.1231056	.2425356	3.8805700	.4090844	.2353	3.3529	16.0
16.1	4.1352146	.2418254	3.8933892	.4090229	.2339	3.3509	16.1
16.2	4.1472883	.2411214	3.9061669	.4089621	.2326	3.3488	16.2
16.3	4.1593269	.2404235	3.9189033	.4089021	.2312	3.3468	16.3
16.4	4.1713307	.2397317	3.9315991	.4088427	.2299	3.3448	16.4
16.5	4.1833001	.2390457	3.9442544	.4087841	.2286	3.3429	16.5
16.6	4.1952354	.2383656	3.9568697	.4087262	.2273	3.3409	16.6
16.7	4.2071368	.2376913	3.9694454	.4086689	.2260	3.3390	16.7
16.8	4.2190046	.2370227	3.9819819	.4086123	.2247	3.3371	16.8
16.9	4.2308392	.2363597	3.9944794	.4085564	.2234	3.3352	16.9
17.0	4.2426407	.2357023	4.0069384	.4085011	.2222	3.3333	17.0
17.1	4.2544095	.2350502	4.0193592	.4084465	.2210	3.3315	17.1
17.2	4.2661458	.2344036	4.0317422	.4083924	.2198	3.3297	17.2
17.3	4.2778499	.2337623	4.0440876	.4083390	.2186	3.3278	17.3
17.4	4.2895221	.2331262	4.0563959	.4082862	.2174	3.3261	17.4
17.5	4.3011626	.2324953	4.0686674	.4082339	.2162	3.3243	17.5
17.6	4.3127717	.2318694	4.0809023	.4081823	.2151	3.3226	17.6
17.7	4.3243497	.2312486	4.0931010	.4081312	.2139	3.3209	17.7
17.8	4.3358967	.2306328	4.1052639	.4080807	.2128	3.3191	17.8
17.9	4.3474130	.2300219	4.1173912	.4080307	.2116	3.3175	17.9
18.0	4.3588989	.2294157	4.1294832	.4079813	.2105	3.3158	18.0
18.1	4.3703547	.2288144	4.1415403	.4079324	.2094	3.3141	18.1
18.2	4.3817805	.2282177	4.1535627	.4078840	.2083	3.3125	18.2
18.3	4.3931765	.2276257	4.1655508	.4078362	.2073	3.3109	18.3
18.4	4.4045431	.2270383	4.1775048	.4077888	.2062	3.3093	18.4
18.5	4.4158804	.2264554	4.1894250	.4077420	.2051	3.3077	18.5
18.6	4.4271887	.2258770	4.2013117	.4076957	.2041	3.3061	18.6
18.7	4.4384682	.2253030	4.2131652	.4076498	.2030	3.3046	18.7
18.8	4.4497191	.2247333	4.2249858	.4076044	.2020	3.3030	18.8
18.9	4.4609416	.2241679	4.2367737	.4075595	.2010	3.3015	18.9
19.0	4.4721360	.2236068	4.2485292	.4075151	.2000	3.3000	19.0
19.1	4.4833024	.2230499	4.2602525	.4074711	.1990	3.2985	19.1
19.2	4.4944410	.2224971	4.2719439	.4074275	.1980	3.2970	19.2
19.3	4.5055521	.2219484	4.2836037	.4073844	.1970	3.2956	19.3
19.4	4.5166359	.2214037	4.2952322	.4073418	.1961	3.2941	19.4
19.5	4.5276926	.2208631	4.3068295	.4072995	.1951	3.2927	19.5
19.6	4.5387223	.2203263	4.3183960	.4072577	.1942	3.2913	19.6
19.7	4.5497253	.2197935	4.3299318	.4072163	.1932	3.2899	19.7
19.8	4.5607017	.2192645	4.3414372	.4071754	.1923	3.2885	19.8
19.9	4.5716518	.2187393	4.3529125	.4071348	.1914	3.2871	19.9
20.0	4.5825757	.2182179	4.3643578	.4070946	.1905	3.2857	20.0
20.1	4.5934736	.2177002	4.3757735	.4070548	.1896	3.2844	20.1
20.2	4.6043458	.2171861	4.3871597	.4070154	.1887	3.2830	20.2
20.3	4.6151923	.2166757	4.3985166	.4069763	.1878	3.2817	20.3
20.4	4.6260134	.2161689	4.4098446	.4069377	.1869	3.2804	20.4
20.5	4.6368092	.2156655	4.4211437	.4068995	.1860	3.2791	20.5
20.6	4.6475800	.2151657	4.4324143	.4068615	.1852	3.2778	20.6
20.7	4.6583259	.2146694	4.4436565	.4068240	.1843	3.2765	20.7
20.8	4.6690470	.2141765	4.4548705	.4067868	.1835	3.2752	20.8
20.9	4.6797436	.2136869	4.4660567	.4067499	.1826	3.2740	20.9
21.0	4.6904158	.2132007	4.4772150	.4067134	.1818	3.2727	21.0
21.1	4.7010637	.2127178	4.4883459	.4066773	.1810	3.2715	21.1
21.2	4.7116876	.2122382	4.4994494	.4066414	.1802	3.2703	21.2
21.3	4.7222876	.2117618	4.5105258	.4066059	.1794	3.2691	21.3
21.4	4.7328638	.2112886	4.5215753	.4065708	.1786	3.2679	21.4
21.5	4.7434165	.2108185	4.5325980	.4065359	.1778	3.2667	21.5
21.6	4.7539457	.2103516	4.5435941	.4065014	.1770	3.2655	21.6
21.7	4.7644517	.2098877	4.5545640	.4064672	.1762	3.2643	21.7
21.8	4.7749346	.2094270	4.5655076	.4064332	.1754	3.2632	21.8
21.9	4.7853944	.2089692	4.5764253	.4063996	.1747	3.2620	21.9
22.0	4.7958315	.2085144	4.5873171	.4063663	.1739	3.2609	22.0

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
22.0	4.7958315	.2085144	4.5873171	.4063663	.1739	3.2609	22.0
22.1	4.8062459	.2080626	4.5981833	.4063333	.1732	3.2597	22.1
22.2	4.8166378	.2076137	4.6090241	.4063006	.1724	3.2586	22.2
22.3	4.8270074	.2071677	4.6198397	.4062682	.1717	3.2575	22.3
22.4	4.8373546	.2067246	4.6306301	.4062360	.1709	3.2564	22.4
22.5	4.8476799	.2062842	4.6413956	.4062041	.1702	3.2553	22.5
22.6	4.8579831	.2058467	4.6521364	.4061726	.1695	3.2542	22.6
22.7	4.8682646	.2054120	4.6628526	.4061412	.1688	3.2532	22.7
22.8	4.8785244	.2049800	4.6735444	.4061102	.1681	3.2521	22.8
22.9	4.8887626	.2045507	4.6842119	.4060794	.1674	3.2510	22.9
23.0	4.8989795	.2041241	4.6948553	.4060489	.1667	3.2500	23.0
23.1	4.9091751	.2037002	4.7054749	.4060187	.1660	3.2490	23.1
23.2	4.9193496	.2032789	4.7160706	.4059887	.1653	3.2479	23.2
23.3	4.9295030	.2028602	4.7266428	.4059589	.1646	3.2469	23.3
23.4	4.9396356	.2024441	4.7371915	.4059294	.1639	3.2459	23.4
23.5	4.9497475	.2020305	4.7477170	.4059002	.1633	3.2449	23.5
23.6	4.9598387	.2016195	4.7582192	.4058712	.1626	3.2439	23.6
23.7	4.9699095	.2012109	4.7686985	.4058424	.1619	3.2429	23.7
23.8	4.9799598	.2008048	4.7791550	.4058139	.1613	3.2419	23.8
23.9	4.9899900	.2004012	4.7895888	.4057856	.1606	3.2410	23.9
24.0	5.0000000	.2000000	4.8000000	.4057575	.1600	3.2400	24.0
24.1	5.0099900	.1996012	4.8103888	.4057297	.1594	3.2390	24.1
24.2	5.0199602	.1992048	4.8207554	.4057021	.1587	3.2381	24.2
24.3	5.0299105	.1988107	4.8310998	.4056747	.1581	3.2372	24.3
24.4	5.0398413	.1984189	4.8414223	.4056476	.1575	3.2362	24.4
24.5	5.0497525	.1980295	4.8517230	.4056206	.1569	3.2353	24.5
24.6	5.0596443	.1976424	4.8620018	.4055939	.1562	3.2344	24.6
24.7	5.0695167	.1972575	4.8722593	.4055674	.1556	3.2335	24.7
24.8	5.0793700	.1968748	4.8824952	.4055411	.1550	3.2326	24.8
24.9	5.0892043	.1964944	4.8927099	.4055150	.1544	3.2317	24.9
25.0	5.0990195	.1961161	4.9029034	.4054891	.1538	3.2308	25.0
25.1	5.1088159	.1957401	4.9130758	.4054634	.1533	3.2299	25.1
25.2	5.1185936	.1953662	4.9232274	.4054379	.1527	3.2290	25.2
25.3	5.1283526	.1949944	4.9333582	.4054126	.1521	3.2281	25.3
25.4	5.1380930	.1946247	4.9434683	.4053875	.1515	3.2273	25.4
25.5	5.1478151	.1942572	4.9535579	.4053626	.1509	3.2264	25.5
25.6	5.1575188	.1938917	4.9636271	.4053379	.1504	3.2256	25.6
25.7	5.1672043	.1935283	4.9736760	.4053134	.1498	3.2247	25.7
25.8	5.1768716	.1931669	4.9837048	.4052891	.1493	3.2239	25.8
25.9	5.1865210	.1928075	4.9937135	.4052650	.1487	3.2230	25.9
26.0	5.1961524	.1924501	5.0037023	.4052410	.1481	3.2222	26.0
26.1	5.2057660	.1920947	5.0136713	.4052172	.1476	3.2214	26.1
26.2	5.2153619	.1917412	5.0236207	.4051936	.1471	3.2206	26.2
26.3	5.2249402	.1913898	5.0335504	.4051702	.1465	3.2198	26.3
26.4	5.2345009	.1910402	5.0434608	.4051469	.1460	3.2190	26.4
26.5	5.2440442	.1906925	5.0533517	.4051239	.1455	3.2182	26.5
26.6	5.2535702	.1903467	5.0632235	.4051010	.1449	3.2174	26.6
26.7	5.2630789	.1900029	5.0730761	.4050782	.1444	3.2166	26.7
26.8	5.2725705	.1896608	5.0829097	.4050557	.1439	3.2158	26.8
26.9	5.2820451	.1893206	5.0927244	.4050333	.1434	3.2151	26.9
27.0	5.2915026	.1889822	5.1025204	.4050110	.1429	3.2143	27.0
27.1	5.3009433	.1886457	5.1122976	.4049890	.1423	3.2135	27.1
27.2	5.3103672	.1883109	5.1220563	.4049670	.1418	3.2128	27.2
27.3	5.3197744	.1879779	5.1317965	.4049453	.1413	3.2120	27.3
27.4	5.3291650	.1876467	5.1415184	.4049237	.1408	3.2113	27.4
27.5	5.3385391	.1873172	5.1512220	.4049022	.1404	3.2105	27.5
27.6	5.3478968	.1869894	5.1609074	.4048809	.1399	3.2098	27.6
27.7	5.3572381	.1866633	5.1705747	.4048598	.1394	3.2091	27.7
27.8	5.3665631	.1863390	5.1802241	.4048388	.1389	3.2083	27.8
27.9	5.3758720	.1860163	5.1898557	.4048180	.1384	3.2076	27.9
28.0	5.3851648	.1856953	5.1994695	.4047973	.1379	3.2069	28.0

$p = 28.0$  to  $34.0$  TABLE IV. CONSTANTS OF THE SKEW-CURVE  $y = y_0 x^p e^{-x}$  159

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
28.0	5.3851648	.1856953	5.1994695	.4047973	.1379	3.2069	28.0
28.1	5.3944416	.1853760	5.2090656	.4047767	.1375	3.2062	28.1
28.2	5.4037024	.1850583	5.2186441	.4047563	.1370	3.2055	28.2
28.3	5.4129474	.1847422	5.2282052	.4047360	.1365	3.2048	28.3
28.4	5.4221767	.1844278	5.2377489	.4047159	.1361	3.2041	28.4
28.5	5.4313902	.1841149	5.2472753	.4046959	.1356	3.2034	28.5
28.6	5.4405882	.1838037	5.2567845	.4046761	.1351	3.2027	28.6
28.7	5.4497706	.1834940	5.2662767	.4046564	.1347	3.2020	28.7
28.8	5.4589376	.1831858	5.2757518	.4046368	.1342	3.2013	28.8
28.9	5.4680892	.1828792	5.2852100	.4046174	.1338	3.2007	28.9
29.0	5.4772256	.1825742	5.2946514	.4045980	.1333	3.2000	29.0
29.1	5.4863467	.1822707	5.3040760	.4045789	.1329	3.1993	29.1
29.2	5.4954527	.1819686	5.3134840	.4045598	.1325	3.1987	29.2
29.3	5.5045436	.1816681	5.3228755	.4045409	.1320	3.1980	29.3
29.4	5.5136195	.1813691	5.3322504	.4045221	.1316	3.1974	29.4
29.5	5.5226805	.1810715	5.3416090	.4045034	.1311	3.1967	29.5
29.6	5.5317267	.1807754	5.3509513	.4044849	.1307	3.1961	29.6
29.7	5.5407581	.1804807	5.3602774	.4044665	.1303	3.1954	29.7
29.8	5.5497748	.1801875	5.3695873	.4044482	.1299	3.1948	29.8
29.9	5.5587768	.1798957	5.3788812	.4044300	.1294	3.1942	29.9
30.0	5.5677644	.1796053	5.3881591	.4044119	.1290	3.1935	30.0
30.1	5.5767374	.1793163	5.3974211	.4043940	.1286	3.1929	30.1
30.2	5.5856960	.1790287	5.4066673	.4043762	.1282	3.1923	30.2
30.3	5.5946403	.1787425	5.4158978	.4043585	.1278	3.1917	30.3
30.4	5.6035703	.1784577	5.4251126	.4043409	.1274	3.1911	30.4
30.5	5.6124861	.1781742	5.4343119	.4043234	.1270	3.1905	30.5
30.6	5.6213877	.1778920	5.4434957	.4043060	.1266	3.1899	30.6
30.7	5.6302753	.1776112	5.4526641	.4042888	.1262	3.1893	30.7
30.8	5.6391489	.1773317	5.4618171	.4042716	.1258	3.1887	30.8
30.9	5.6480085	.1770536	5.4709549	.4042546	.1254	3.1881	30.9
31.0	5.6568542	.1767767	5.4800776	.4042377	.1250	3.1875	31.0
31.1	5.6656862	.1765011	5.4891851	.4042209	.1246	3.1869	31.1
31.2	5.6745044	.1762268	5.4982775	.4042042	.1242	3.1863	31.2
31.3	5.6833089	.1759538	5.5073551	.4041875	.1238	3.1858	31.3
31.4	5.6920998	.1756821	5.5164177	.4041711	.1235	3.1852	31.4
31.5	5.7008771	.1754116	5.5254655	.4041547	.1231	3.1846	31.5
31.6	5.7096410	.1751424	5.5344986	.4041384	.1227	3.1840	31.6
31.7	5.7183914	.1748744	5.5435170	.4041222	.1223	3.1835	31.7
31.8	5.7271284	.1746076	5.5525209	.4041061	.1220	3.1829	31.8
31.9	5.7358522	.1743420	5.5615101	.4040901	.1216	3.1824	31.9
32.0	5.7445626	.1740777	5.5704850	.4040742	.1212	3.1818	32.0
32.1	5.7532599	.1738145	5.5794454	.4040584	.1208	3.1813	32.1
32.2	5.7619441	.1735525	5.5883916	.4040427	.1205	3.1807	32.2
32.3	5.7706152	.1732917	5.5973235	.4040271	.1201	3.1802	32.3
32.4	5.7792733	.1730321	5.6062412	.4040116	.1198	3.1796	32.4
32.5	5.7879185	.1727737	5.6151448	.4039962	.1194	3.1791	32.5
32.6	5.7965507	.1725164	5.6240343	.4039809	.1190	3.1786	32.6
32.7	5.8051701	.1722602	5.6329099	.4039656	.1187	3.1780	32.7
32.8	5.8137767	.1720052	5.6417715	.4039505	.1183	3.1775	32.8
32.9	5.8223707	.1717513	5.6506193	.4039355	.1180	3.1770	32.9
33.0	5.8309519	.1714986	5.6594533	.4039205	.1176	3.1765	33.0
33.1	5.8395205	.1712469	5.6682736	.4039056	.1173	3.1760	33.1
33.2	5.8480766	.1709964	5.6770802	.4038909	.1170	3.1754	33.2
33.3	5.8566202	.1707469	5.6858732	.4038762	.1166	3.1749	33.3
33.4	5.8651513	.1704986	5.6946527	.4038616	.1163	3.1744	33.4
33.5	5.8736701	.1702513	5.7034188	.4038470	.1159	3.1739	33.5
33.6	5.8821765	.1700051	5.7121714	.4038326	.1156	3.1734	33.6
33.7	5.8906706	.1697600	5.7209106	.4038183	.1153	3.1729	33.7
33.8	5.8991525	.1695159	5.7296366	.4038040	.1149	3.1724	33.8
33.9	5.9076222	.1692728	5.7383494	.4037898	.1146	3.1719	33.9
34.0	5.9160798	.1690309	5.7470489	.4037758	.1143	3.1714	34.0

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
34.0	5.9160798	.1690309	5.7470489	.4037758	.1143	3.1714	34.0
34.1	5.9245253	.1687899	5.7557354	.4037617	.1140	3.1709	34.1
34.2	5.9329588	.1685500	5.7644088	.4037478	.1136	3.1705	34.2
34.3	5.9413803	.1683111	5.7730693	.4037339	.1133	3.1700	34.3
34.4	5.9497899	.1680732	5.7817167	.4037202	.1130	3.1695	34.4
34.5	5.9581876	.1678363	5.7903514	.4037065	.1127	3.1690	34.5
34.6	5.9665736	.1676004	5.7989732	.4036929	.1124	3.1685	34.6
34.7	5.9749477	.1673655	5.8075822	.4036793	.1120	3.1681	34.7
34.8	5.9833101	.1671316	5.8161786	.4036659	.1117	3.1676	34.8
34.9	5.9916609	.1668986	5.8247622	.4036525	.1114	3.1671	34.9
35.0	6.0000000	.1666667	5.8333333	.4036392	.1111	3.1667	35.0
35.1	6.0083276	.1664357	5.8418919	.4036259	.1108	3.1662	35.1
35.2	6.0166436	.1662056	5.8504380	.4036128	.1105	3.1657	35.2
35.3	6.0249481	.1659765	5.8589716	.4035997	.1102	3.1653	35.3
35.4	6.0332413	.1657484	5.8674929	.4035867	.1099	3.1648	35.4
35.5	6.0415230	.1655212	5.8760018	.4035737	.1096	3.1644	35.5
35.6	6.0497934	.1652949	5.8844985	.4035609	.1093	3.1639	35.6
35.7	6.0580525	.1650695	5.8929829	.4035481	.1090	3.1635	35.7
35.8	6.0663004	.1648451	5.9014552	.4035353	.1087	3.1630	35.8
35.9	6.0745370	.1646216	5.9099154	.4035227	.1084	3.1626	35.9
36.0	6.0827625	.1643990	5.9183635	.4035101	.1081	3.1622	36.0
36.1	6.0909769	.1641773	5.9267997	.4034976	.1078	3.1617	36.1
36.2	6.0991803	.1639565	5.9352238	.4034851	.1075	3.1613	36.2
36.3	6.1073726	.1637365	5.9436361	.4034727	.1072	3.1609	36.3
36.4	6.1155539	.1635175	5.9520365	.4034604	.1070	3.1604	36.4
36.5	6.1237244	.1632993	5.9604250	.4034482	.1067	3.1600	36.5
36.6	6.1318839	.1630820	5.9688019	.4034360	.1064	3.1596	36.6
36.7	6.1400326	.1628656	5.9771670	.4034239	.1061	3.1592	36.7
36.8	6.1481705	.1626500	5.9855204	.4034118	.1058	3.1587	36.8
36.9	6.1562976	.1624353	5.9938623	.4033998	.1055	3.1583	36.9
37.0	6.1644140	.1622214	6.0021926	.4033879	.1053	3.1579	37.0
37.1	6.1725197	.1620084	6.0105114	.4033761	.1050	3.1575	37.1
37.2	6.1806149	.1617962	6.0188187	.4033643	.1047	3.1571	37.2
37.3	6.1886994	.1615848	6.0271145	.4033525	.1044	3.1567	37.3
37.4	6.1967734	.1613743	6.0353990	.4033409	.1042	3.1562	37.4
37.5	6.2048368	.1611646	6.0436722	.4033293	.1039	3.1558	37.5
37.6	6.2128898	.1609557	6.0519341	.4033177	.1036	3.1554	37.6
37.7	6.2209324	.1607476	6.0601848	.4033062	.1034	3.1550	37.7
37.8	6.2289646	.1605403	6.0684243	.4032948	.1031	3.1546	37.8
37.9	6.2369865	.1603338	6.0766526	.4032834	.1028	3.1542	37.9
38.0	6.2449980	.1601282	6.0848698	.4032721	.1026	3.1538	38.0
38.1	6.2529993	.1599233	6.0930760	.4032608	.1023	3.1535	38.1
38.2	6.2609903	.1597191	6.1012712	.4032497	.1020	3.1531	38.2
38.3	6.2689712	.1595158	6.1094554	.4032385	.1018	3.1527	38.3
38.4	6.2769419	.1593132	6.1176287	.4032275	.1015	3.1523	38.4
38.5	6.2849025	.1591115	6.1257911	.4032164	.1013	3.1519	38.5
38.6	6.2928531	.1589104	6.1339427	.4032055	.1010	3.1515	38.6
38.7	6.3007936	.1587102	6.1420834	.4031946	.1008	3.1511	38.7
38.8	6.3087241	.1585107	6.1502135	.4031837	.1005	3.1508	38.8
38.9	6.3166447	.1583119	6.1583328	.4031729	.1003	3.1504	38.9
39.0	6.3245553	.1581139	6.1664414	.4031622	.1000	3.1500	39.0
39.1	6.3324561	.1579166	6.1745395	.4031515	.0998	3.1496	39.1
39.2	6.3403470	.1577201	6.1826269	.4031409	.0995	3.1493	39.2
39.3	6.3482281	.1575243	6.1907038	.4031303	.0993	3.1489	39.3
39.4	6.3560994	.1573292	6.1987702	.4031198	.0990	3.1485	39.4
39.5	6.3639610	.1571348	6.2068262	.4031093	.0988	3.1481	39.5
39.6	6.3718129	.1569412	6.2148717	.4030989	.0985	3.1478	39.6
39.7	6.3796552	.1567483	6.2229069	.4030885	.0983	3.1474	39.7
39.8	6.3874878	.1565561	6.2309317	.4030782	.0980	3.1471	39.8
39.9	6.3953108	.1563646	6.2389462	.4030679	.0978	3.1467	39.9
40.0	6.4031242	.1561738	6.2469505	.4030577	.0976	3.1463	40.0

$p = 40.0$  to  $46.0$  TABLE IV. CONSTANTS OF THE SKEW-CURVE  $y = y_0 x^p e^{-x}$  161

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
40.0	6.4031242	.1561738	6.2469505	.4030577	.0976	3.1463	40.0
40.1	6.4109282	.1559837	6.2549445	.4030475	.0973	3.1460	40.1
40.2	6.4187226	.1557942	6.2629284	.4030374	.0971	3.1456	40.2
40.3	6.4265076	.1556055	6.2709021	.4030274	.0969	3.1453	40.3
40.4	6.4342832	.1554175	6.2788657	.4030173	.0966	3.1449	40.4
40.5	6.4420494	.1552301	6.2868193	.4030074	.0964	3.1446	40.5
40.6	6.4498062	.1550434	6.2947628	.4029975	.0962	3.1442	40.6
40.7	6.4575537	.1548574	6.3026963	.4029876	.0959	3.1439	40.7
40.8	6.4652919	.1546721	6.3106199	.4029778	.0957	3.1435	40.8
40.9	6.4730209	.1544874	6.3185336	.4029680	.0955	3.1432	40.9
41.0	6.4807407	.1543033	6.3264373	.4029583	.0952	3.1429	41.0
41.1	6.4884513	.1541200	6.3343313	.4029486	.0950	3.1425	41.1
41.2	6.4961527	.1539373	6.3422154	.4029390	.0948	3.1422	41.2
41.3	6.5038450	.1537552	6.3500898	.4029294	.0946	3.1418	41.3
41.4	6.5115282	.1535738	6.3579545	.4029198	.0943	3.1415	41.4
41.5	6.5192024	.1533930	6.3658094	.4029103	.0941	3.1412	41.5
41.6	6.5268675	.1532129	6.3736547	.4029009	.0939	3.1408	41.6
41.7	6.5345237	.1530333	6.3814903	.4028915	.0937	3.1405	41.7
41.8	6.5421709	.1528545	6.3893164	.4028821	.0935	3.1402	41.8
41.9	6.5498092	.1526762	6.3971330	.4028728	.0932	3.1399	41.9
42.0	6.5574385	.1524986	6.4049400	.4028635	.0930	3.1395	42.0
42.1	6.5650590	.1523216	6.4127375	.4028543	.0928	3.1392	42.1
42.2	6.5726707	.1521452	6.4205255	.4028451	.0926	3.1389	42.2
42.3	6.5802736	.1519694	6.4283042	.4028360	.0924	3.1386	42.3
42.4	6.5878676	.1517942	6.4360734	.4028269	.0922	3.1382	42.4
42.5	6.5954530	.1516196	6.4438334	.4028178	.0920	3.1379	42.5
42.6	6.6030296	.1514456	6.4515840	.4028088	.0917	3.1376	42.6
42.7	6.6105976	.1512723	6.4593253	.4027998	.0915	3.1373	42.7
42.8	6.6181568	.1510995	6.4670574	.4027909	.0913	3.1370	42.8
42.9	6.6257075	.1509273	6.4747802	.4027820	.0911	3.1367	42.9
43.0	6.6332496	.1507557	6.4824939	.4027732	.0909	3.1364	43.0
43.1	6.6407831	.1505847	6.4901984	.4027644	.0907	3.1361	43.1
43.2	6.6483081	.1504142	6.4978939	.4027556	.0905	3.1357	43.2
43.3	6.6558245	.1502443	6.5055802	.4027469	.0903	3.1354	43.3
43.4	6.6633325	.1500751	6.5132574	.4027382	.0901	3.1351	43.4
43.5	6.6708320	.1499063	6.5209257	.4027295	.0899	3.1348	43.5
43.6	6.6783231	.1497382	6.5285850	.4027209	.0897	3.1345	43.6
43.7	6.6858059	.1495706	6.5362353	.4027123	.0895	3.1342	43.7
43.8	6.6932802	.1494036	6.5438766	.4027038	.0893	3.1339	43.8
43.9	6.7007462	.1492371	6.5515091	.4026953	.0891	3.1336	43.9
44.0	6.7082039	.1490712	6.5591327	.4026869	.0889	3.1333	44.0
44.1	6.7156534	.1489058	6.5667475	.4026785	.0887	3.1330	44.1
44.2	6.7230945	.1487410	6.5743535	.4026701	.0885	3.1327	44.2
44.3	6.7305275	.1485768	6.5819507	.4026617	.0883	3.1325	44.3
44.4	6.7379522	.1484130	6.5895392	.4026534	.0881	3.1322	44.4
44.5	6.7453688	.1482499	6.5971189	.4026452	.0879	3.1319	44.5
44.6	6.7527772	.1480872	6.6046900	.4026369	.0877	3.1316	44.6
44.7	6.7601775	.1479251	6.6122524	.4026287	.0875	3.1313	44.7
44.8	6.7675697	.1477635	6.6198062	.4026206	.0873	3.1310	44.8
44.9	6.7749539	.1476025	6.6273514	.4026125	.0871	3.1307	44.9
45.0	6.7823300	.1474420	6.6348880	.4026044	.0870	3.1304	45.0
45.1	6.7896981	.1472820	6.6424161	.4025963	.0868	3.1301	45.1
45.2	6.7970582	.1471225	6.6499357	.4025883	.0866	3.1299	45.2
45.3	6.8044103	.1469635	6.6574468	.4025803	.0864	3.1296	45.3
45.4	6.8117545	.1468051	6.6649495	.4025724	.0862	3.1293	45.4
45.5	6.8190908	.1466471	6.6724437	.4025645	.0860	3.1290	45.5
45.6	6.8264193	.1464897	6.6799296	.4025566	.0858	3.1288	45.6
45.7	6.8337398	.1463328	6.6874071	.4025488	.0857	3.1285	45.7
45.8	6.8410526	.1461763	6.6948762	.4025410	.0855	3.1282	45.8
45.9	6.8483575	.1460204	6.7023371	.4025332	.0853	3.1279	45.9
46.0	6.8556546	.1458650	6.7097896	.4025254	.0851	3.1277	46.0

$p$	$\sqrt{p+1}$	$\frac{1}{\sqrt{p+1}}$	$\frac{p}{\sqrt{p+1}}$	$x = \frac{p^p e^{-p} \sqrt{p+1}}{\Gamma(p+1)}$	$\beta_1 = \frac{4}{p+1}$	$\beta_2 = 3 + \frac{6}{p+1}$	$p$
46.0	6.8556546	.1458650	6.7097896	.4025254	.0851	3.1277	46.0
46.1	6.8629440	.1457101	6.7172339	.4025177	.0849	3.1274	46.1
46.2	6.8702256	.1455556	6.7246700	.4025101	.0847	3.1271	46.2
46.3	6.8774995	.1454017	6.7320979	.4025024	.0846	3.1268	46.3
46.4	6.8847658	.1452482	6.7395176	.4024948	.0844	3.1266	46.4
46.5	6.8920244	.1450952	6.7469291	.4024872	.0842	3.1263	46.5
46.6	6.8992753	.1449428	6.7543326	.4024797	.0840	3.1261	46.6
46.7	6.9065187	.1447907	6.7617279	.4024722	.0839	3.1258	46.7
46.8	6.9137544	.1446392	6.7691152	.4024647	.0837	3.1255	46.8
46.9	6.9209826	.1444882	6.7764944	.4024573	.0835	3.1253	46.9
47.0	6.9282032	.1443376	6.7838657	.4024498	.0833	3.1250	47.0
47.1	6.9354164	.1441875	6.7912289	.4024425	.0832	3.1247	47.1
47.2	6.9426220	.1440378	6.7985842	.4024351	.0830	3.1245	47.2
47.3	6.9498201	.1438886	6.8059315	.4024278	.0828	3.1242	47.3
47.4	6.9570109	.1437399	6.8132710	.4024205	.0826	3.1240	47.4
47.5	6.9641941	.1435916	6.8206025	.4024132	.0825	3.1237	47.5
47.6	6.9713700	.1434438	6.8279262	.4024060	.0823	3.1235	47.6
47.7	6.9785385	.1432965	6.8352421	.4023988	.0821	3.1232	47.7
47.8	6.9856997	.1431496	6.8425501	.4023916	.0820	3.1230	47.8
47.9	6.9928535	.1430031	6.8498504	.4023845	.0818	3.1227	47.9
48.0	7.0000000	.1428571	6.8571429	.4023774	.0816	3.1224	48.0
48.1	7.0071392	.1427116	6.8644276	.4023703	.0815	3.1222	48.1
48.2	7.0142712	.1425665	6.8717047	.4023632	.0813	3.1220	48.2
48.3	7.0213959	.1424218	6.8789741	.4023562	.0811	3.1217	48.3
48.4	7.0285134	.1422776	6.8862358	.4023492	.0810	3.1215	48.4
48.5	7.0356236	.1421338	6.8934898	.4023422	.0808	3.1212	48.5
48.6	7.0427267	.1419905	6.9007363	.4023353	.0806	3.1210	48.6
48.7	7.0498227	.1418475	6.9079752	.4023284	.0805	3.1207	48.7
48.8	7.0569115	.1417051	6.9152065	.4023215	.0803	3.1205	48.8
48.9	7.0639932	.1415630	6.9224302	.4023146	.0802	3.1202	48.9
49.0	7.0710678	.1414214	6.9296464	.4023078	.0800	3.1200	49.0
49.1	7.0781353	.1412801	6.9368552	.4023010	.0798	3.1198	49.1
49.2	7.0851958	.1411394	6.9440565	.4022942	.0797	3.1195	49.2
49.3	7.0922493	.1409990	6.9512503	.4022875	.0795	3.1193	49.3
49.4	7.0992957	.1408590	6.9584367	.4022808	.0794	3.1190	49.4
49.5	7.1063352	.1407195	6.9656157	.4022741	.0792	3.1188	49.5
49.6	7.1133677	.1405804	6.9727873	.4022674	.0791	3.1186	49.6
49.7	7.1203932	.1404417	6.9799516	.4022608	.0789	3.1183	49.7
49.8	7.1274119	.1403034	6.9871085	.4022542	.0787	3.1181	49.8
49.9	7.1344236	.1401655	6.9942581	.4022476	.0786	3.1179	49.9
50.0	7.1414284	.1400280	7.0014004	.4022410	.0784	3.1176	50.0
50.1	7.1484264	.1398909	7.0085355	.4022345	.0783	3.1174	50.1

$u$	$p = -1.00$	$p = -0.99$	$p = -0.98$	$p = -0.97$	$p = -0.96$	$p = -0.95$	$p = -0.94$	$p = -0.93$	$p = -0.92$	$p = -0.91$	$p = -0.90$	$p = -0.89$	$p = -0.88$	$p = -0.87$	$u$
0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	0
.1	1.00000	.96035	.92846	.89979	.87332	.84855	.82516	.80294	.78176	.76148	.74203	.72332	.70529	.68789	.1
.2	1.00000	.96693	.94116	.91824	.89720	.87755	.85903	.84143	.82464	.80853	.79305	.77811	.76368	.74971	.2
.3	1.00000	.97077	.94857	.92902	.91118	.89460	.87900	.86420	.85009	.83658	.82357	.81103	.79890	.78714	.3
.4	1.00000	.97347	.95378	.93661	.92104	.90662	.89311	.88032	.86814	.85649	.84529	.83449	.82404	.81392	.4
.5	1.00000	.97555	.95779	.94245	.92861	.91587	.90395	.89271	.88203	.87183	.86203	.85259	.84347	.83463	.5
.6	1.00000	.97723	.96103	.94716	.93473	.92332	.91270	.90271	.89324	.88421	.87555	.86722	.85918	.85139	.6
.7	1.00000	.97865	.96374	.95109	.93983	.92954	.92000	.91105	.90258	.89452	.88681	.87941	.87231	.86536	.7
.8	1.00000	.97986	.96607	.95446	.94418	.93485	.92622	.91815	.91053	.90331	.89640	.88978	.88341	.87725	.8
.9	1.00000	.98092	.96809	.95739	.94797	.93945	.93161	.92430	.91742	.91091	.90470	.89876	.89305	.88753	.9
1.0	1.00000	.98186	.96988	.95997	.95130	.94350	.93635	.92970	.92347	.91758	.91198	.90662	.90148	.89654	1.0
1.1	1.00000	.98271	.97148	.96227	.95427	.94710	.94055	.93449	.92883	.92348	.91841	.91358	.90895	.90449	1.1
1.2	1.00000	.98347	.97292	.96434	.95693	.95033	.94432	.93878	.93362	.92876	.92416	.91979	.91560	.91159	1.2
1.3	1.00000	.98417	.97423	.96622	.95935	.95325	.94772	.94265	.93793	.93350	.92933	.92536	.92157	.91795	1.3
1.4	1.00000	.98481	.97543	.96794	.96154	.95590	.95081	.94615	.94183	.93780	.93399	.93039	.92696	.92368	1.4
1.5	1.00000	.98539	.97653	.96951	.96355	.95832	.95363	.94934	.94539	.94170	.93824	.93496	.93185	.92889	1.5
1.6	1.00000	.98594	.97755	.97095	.96540	.96054	.95621	.95226	.94864	.94526	.94211	.93913	.93631	.93362	1.6
1.7	1.00000	.98645	.97849	.97229	.96710	.96259	.95858	.95495	.95162	.94853	.94565	.94294	.94038	.93794	1.7
1.8	1.00000	.98692	.97937	.97353	.96868	.96449	.96077	.95742	.95436	.95154	.94891	.94644	.94411	.94190	1.8
1.9	1.00000	.98737	.98019	.97469	.97015	.96624	.96280	.95971	.95690	.95431	.95191	.94966	.94755	.94555	1.9
2.0	1.00000	.98778	.98096	.97577	.97152	.96788	.96469	.96183	.95925	.95688	.95468	.95263	.95071	.94890	2.0
2.1	1.00000	.98818	.98168	.97678	.97279	.96940	.96644	.96381	.96143	.95925	.95725	.95539	.95364	.95200	2.1
2.2	1.00000	.98855	.98236	.97773	.97399	.97083	.96808	.96565	.96346	.96146	.95963	.95794	.95635	.95487	2.2
2.3	1.00000	.98890	.98300	.97862	.97511	.97216	.96961	.96736	.96535	.96352	.96185	.96031	.95887	.95753	2.3
2.4	1.00000	.98923	.98360	.97947	.97617	.97341	.97104	.96897	.96711	.96544	.96392	.96251	.96121	.96000	2.4
2.5	1.00000	.98955	.98417	.98026	.97716	.97459	.97239	.97047	.96877	.96724	.96584	.96457	.96339	.96229	2.5
2.6	1.00000	.98985	.98471	.98101	.97810	.97570	.97365	.97188	.97032	.96891	.96765	.96649	.96542	.96443	2.6
2.7	1.00000	.99014	.98523	.98172	.97898	.97674	.97484	.97321	.97177	.97049	.96933	.96828	.96732	.96643	2.7
2.8	1.00000	.99041	.98572	.98239	.97982	.97773	.97597	.97446	.97313	.97196	.97091	.96996	.96909	.96829	2.8
2.9	1.00000	.99068	.98618	.98303	.98061	.97866	.97702	.97563	.97442	.97335	.97240	.97154	.97075	.97004	2.9
3.0	1.00000	.99093	.98663	.98364	.98137	.97954	.97802	.97674	.97563	.97465	.97379	.97301	.97231	.97167	3.0
3.1	1.00000	.99117	.98705	.98422	.98208	.98037	.97897	.97778	.97677	.97588	.97510	.97440	.97377	.97320	3.1
3.2	1.00000	.99140	.98745	.98477	.98276	.98117	.97986	.97877	.97784	.97704	.97633	.97570	.97514	.97463	3.2
3.3	1.00000	.99162	.98784	.98530	.98340	.98192	.98071	.97971	.97886	.97813	.97749	.97693	.97643	.97598	3.3
3.4	1.00000	.99183	.98821	.98580	.98402	.98263	.98152	.98059	.97982	.97916	.97858	.97808	.97764	.97724	3.4
3.5	1.00000	.99204	.98857	.98628	.98460	.98331	.98228	.98143	.98073	.98013	.97962	.97917	.97878	.97843	3.5
3.6	1.00000	.99223	.98891	.98674	.98516	.98396	.98300	.98223	.98159	.98105	.98059	.98020	.97985	.97955	3.6
3.7	1.00000	.99242	.98923	.98717	.98570	.98458	.98369	.98299	.98240	.98192	.98151	.98116	.98086	.98060	3.7
3.8	1.00000	.99260	.98955	.98759	.98621	.98516	.98435	.98370	.98318	.98274	.98238	.98208	.98182	.98160	3.8
3.9	1.00000	.99278	.98985	.98799	.98669	.98572	.98497	.98438	.98391	.98353	.98321	.98294	.98272	.98253	3.9
4.0	1.00000	.99295	.99014	.98838	.98716	.98626	.98557	.98503	.98461	.98427	.98399	.98376	.98357	.98341	4.0
4.1	1.00000	.99311	.99042	.98875	.98760	.98677	.98614	.98565	.98527	.98497	.98473	.98453	.98438	.98425	4.1
4.2	1.00000	.99327	.99068	.98910	.98803	.98725	.98668	.98624	.98590	.98564	.98543	.98526	.98514	.98503	4.2
4.3	1.00000	.99343	.99094	.98945	.98844	.98772	.98719	.98680	.98650	.98627	.98609	.98596	.98586	.98578	4.3
4.4	1.00000	.99358	.99119	.98977	.98883	.98817	.98768	.98733	.98707	.98687	.98672	.98661	.98654	.98648	4.4
4.5	1.00000	.99372	.99143	.99009	.98920	.98859	.98815	.98784	.98761	.98744	.98732	.98724	.98718	.98714	4.5
4.6	1.00000	.99386	.99166	.99039	.98956	.98900	.98860	.98832	.98812	.98799	.98789	.98783	.98779	.98777	4.6
4.7	1.00000	.99399	.99189	.99068	.98991	.98939	.98903	.98879	.98862	.98850	.98843	.98839	.98837	.98837	4.7
4.8	1.00000	.99412	.99210	.99096	.99024	.98977	.98944	.98923	.98908	.98899	.98894	.98892	.98892	.98893	4.8
4.9	1.00000	.99425	.99231	.99123	.99056	.99013	.98984	.98965	.98953	.98946	.98943	.98942	.98944	.98947	4.9
5.0	1.00000	.99437	.99251	.99149	.99087	.99047	.99021	.99005	.98996	.98991	.98990	.98990	.98993	.98997	5.0
5.1	1.00000	.99449	.99271	.99174	.99116	.99080	.99057	.99044	.99037	.99034	.99034	.99036	.99040	.99045	5.1
5.2	1.00000	.99461	.99290	.99199	.99145	.99112	.99092	.99081	.99075	.99074	.99076	.99079	.99084	.99091	5.2
5.3	1.00000	.99472	.99308	.99222	.99172	.99143	.99125	.99116	.99112	.99113	.99116	.99121	.99127	.99134	5.3
5.4	1.00000	.99483	.99325	.99244	.99198	.99172	.99157	.99150	.99148	.99150	.99154	.99160	.99167	.99175	5.4
5.5	1.00000	.99494	.99343	.99266	.99224	.99200	.99187	.99182	.99182	.99185	.99190	.99197	.99205	.99213	5.5
5.6	1.00000	.99504	.99359	.99287	.99248	.99227	.99216	.99213	.99214	.99219	.99225	.99233	.99241	.99250	5.6
5.7	1.00000	.99514	.99375	.99307	.99272	.99253	.99244	.99243	.99243	.99245	.99251	.99258	.99266	.99276	5.7
5.8	1.00000	.99524	.99391	.99327	.99294	.99278	.99271	.99271	.99275	.99281	.99289	.99299	.99308	.99319	5.8
5.9	1.00000	.99533	.99406	.99346	.99316	.99302	.99297	.99298	.99303	.99311	.99320	.99329	.99340	.99350	5.9
6.0	1.00000	.99543	.99420	.99364	.99337	.99325	.99322	.99324	.99330	.99339	.99348	.99359	.99369	.99380	6.0

$u$	$p = -0.87$	$p = -0.86$	$p = -0.85$	$p = -0.84$	$p = -0.83$	$p = -0.82$	$p = -0.81$	$p = -0.80$	$p = -0.79$	$p = -0.78$	$p = -0.77$	$p = -0.76$	$p = -0.75$	$u$
.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.0
.1	.68789	.67109	.65483	.63909	.62383	.60904	.59467	.58073	.56717	.55399	.54117	.52870	.51656	.1
.2	.74971	.73616	.72300	.71021	.69776	.68562	.67379	.66225	.65097	.63996	.62919	.61865	.60834	.2
.3	.78714	.77572	.76462	.75380	.74326	.73297	.72291	.71308	.70345	.69402	.68478	.67572	.66683	.3
.4	.81392	.80409	.79453	.78520	.77611	.76722	.75853	.75002	.74168	.73350	.72548	.71760	.70985	.4
.5	.83463	.82606	.81771	.80957	.80164	.79388	.78629	.77885	.77156	.76440	.75738	.75047	.74368	.5
.6	.85139	.84384	.83649	.82934	.82235	.81553	.80885	.80230	.79589	.78959	.78340	.77732	.77133	.6
.7	.86536	.85867	.85216	.84582	.83964	.83361	.82770	.82192	.81624	.81067	.80520	.79982	.79452	.7
.8	.87725	.87129	.86550	.85986	.85437	.84901	.84377	.83863	.83360	.82866	.82380	.81903	.81433	.8
.9	.88753	.88220	.87703	.87201	.86711	.86233	.85766	.85309	.84861	.84422	.83990	.83566	.83148	.9
1.0	.89654	.89176	.88712	.88263	.87825	.87412	.86981	.86574	.86175	.85783	.85398	.85013	.84649	1.0
1.1	.90449	.90020	.89604	.89201	.88809	.88427	.88054	.87690	.87333	.86984	.86641	.86304	.85973	1.1
1.2	.91159	.90772	.90398	.90035	.89684	.89342	.89008	.88682	.88364	.88051	.87745	.87444	.87149	1.2
1.3	.91795	.91446	.91109	.90784	.90468	.90161	.89862	.89570	.89285	.89006	.88732	.88463	.88200	1.3
1.4	.92368	.92054	.91750	.91457	.91173	.90897	.90629	.90368	.90113	.89863	.89618	.89379	.89143	1.4
1.5	.92889	.92604	.92330	.92066	.91811	.91563	.91323	.91089	.90860	.90637	.90418	.90204	.89994	1.5
1.6	.93362	.93105	.92858	.92620	.92390	.92168	.91952	.91742	.91537	.91337	.91142	.90951	.90763	1.6
1.7	.93794	.93562	.93339	.93124	.92918	.92718	.92524	.92336	.92153	.91974	.91800	.91629	.91462	1.7
1.8	.94190	.93980	.93779	.93586	.93400	.93221	.93047	.92878	.92714	.92555	.92399	.92247	.92097	1.8
1.9	.94555	.94364	.94183	.94009	.93842	.93681	.93525	.93374	.93228	.93085	.92946	.92810	.92678	1.9
2.0	.94890	.94718	.94555	.94398	.94248	.94103	.93964	.93829	.93698	.93571	.93447	.93326	.93208	2.0
2.1	.95200	.95045	.94897	.94756	.94621	.94492	.94367	.94246	.94127	.94016	.93906	.93799	.93694	2.1
2.2	.95487	.95347	.95214	.95087	.94966	.94850	.94738	.94631	.94527	.94426	.94328	.94233	.94140	2.2
2.3	.95753	.95626	.95506	.95398	.95294	.95191	.95081	.94985	.94893	.94803	.94716	.94632	.94550	2.3
2.4	.96000	.95886	.95778	.95676	.95579	.95487	.95398	.95313	.95231	.95151	.95074	.95000	.94927	2.4
2.5	.96229	.96127	.96030	.95939	.95852	.95770	.95691	.95615	.95543	.95473	.95405	.95339	.95275	2.5
2.6	.96443	.96351	.96265	.96183	.96106	.96033	.95963	.95896	.95832	.95770	.95710	.95653	.95597	2.6
2.7	.96643	.96560	.96483	.96409	.96342	.96277	.96215	.96156	.96099	.96045	.95993	.95942	.95894	2.7
2.8	.96829	.96755	.96686	.96622	.96561	.96504	.96449	.96397	.96348	.96300	.96255	.96210	.96168	2.8
2.9	.97004	.96938	.96876	.96819	.96765	.96715	.96667	.96622	.96578	.96537	.96497	.96459	.96423	2.9
3.0	.97167	.97108	.97054	.97003	.96956	.96912	.96870	.96830	.96793	.96757	.96722	.96690	.96658	3.0
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3.2	.97463	.97417	.97375	.97336	.97300	.97266	.97235	.97206	.97178	.97152	.97127	.97103	.97080	3.2
3.3	.97598	.97558	.97520	.97486	.97455	.97426	.97400	.97375	.97351	.97329	.97308	.97288	.97269	3.3
3.4	.97724	.97689	.97657	.97627	.97601	.97576	.97553	.97532	.97513	.97494	.97477	.97460	.97444	3.4
3.5	.97843	.97812	.97785	.97760	.97737	.97716	.97697	.97680	.97663	.97648	.97634	.97620	.97608	3.5
3.6	.97955	.97928	.97905	.97884	.97865	.97847	.97832	.97817	.97804	.97792	.97780	.97770	.97760	3.6
3.7	.98060	.98038	.98018	.98000	.97984	.97970	.97957	.97946	.97935	.97926	.97917	.97909	.97901	3.7
3.8	.98160	.98140	.98124	.98109	.98096	.98085	.98075	.98066	.98058	.98051	.98045	.98039	.98033	3.8
3.9	.98253	.98237	.98224	.98212	.98202	.98193	.98186	.98179	.98173	.98168	.98164	.98160	.98157	3.9
4.0	.98341	.98328	.98318	.98308	.98301	.98294	.98289	.98285	.98281	.98278	.98275	.98273	.98271	4.0
4.1	.98425	.98414	.98406	.98399	.98394	.98390	.98386	.98384	.98382	.98380	.98379	.98379	.98379	4.1
4.2	.98503	.98496	.98489	.98485	.98481	.98479	.98477	.98477	.98476	.98476	.98477	.98478	.98479	4.2
4.3	.98578	.98572	.98568	.98565	.98564	.98563	.98563	.98564	.98564	.98566	.98568	.98570	.98572	4.3
4.4	.98648	.98644	.98642	.98641	.98641	.98642	.98644	.98645	.98648	.98651	.98653	.98657	.98660	4.4
4.5	.98714	.98713	.98712	.98713	.98714	.98716	.98719	.98722	.98726	.98730	.98733	.98738	.98742	4.5
4.6	.98777	.98777	.98778	.98780	.98783	.98786	.98790	.98794	.98799	.98804	.98808	.98813	.98818	4.6
4.7	.98837	.98838	.98841	.98844	.98848	.98852	.98857	.98862	.98868	.98873	.98879	.98884	.98890	4.7
4.8	.98893	.98896	.98899	.98904	.98909	.98914	.98920	.98926	.98932	.98938	.98944	.98951	.98957	4.8
4.9	.98947	.98950	.98955	.98961	.98966	.98973	.98979	.98986	.98993	.98999	.99006	.99013	.99020	4.9
5.0	.98997	.99002	.99008	.99014	.99021	.99028	.99035	.99042	.99050	.99057	.99064	.99071	.99079	5.0
5.1	.99045	.99051	.99058	.99065	.99072	.99080	.99088	.99095	.99103	.99111	.99119	.99126	.99134	5.1
5.2	.99091	.99097	.99105	.99113	.99121	.99129	.99137	.99145	.99154	.99162	.99170	.99178	.99185	5.2
5.3	.99134	.99141	.99149	.99158	.99166	.99175	.99184	.99192	.99201	.99209	.99218	.99226	.99234	5.3
5.4	.99175	.99183	.99192	.99200	.99209	.99219	.99228	.99237	.99245	.99254	.99263	.99271	.99279	5.4
5.5	.99213	.99222	.99232	.99241	.99250	.99260	.99269	.99278	.99287	.99296	.99305	.99314	.99322	5.5
5.6	.99250	.99260	.99269	.99279	.99289	.99299	.99308	.99318	.99327	.99336	.99345	.99354	.99362	5.6
5.7	.99285	.99295	.99305	.99315	.99325	.99335	.99345	.99355	.99364	.99373	.99382	.99391	.99399	5.7
5.8	.99319	.99329	.99339	.99350	.99360	.99370	.99380	.99390	.99399	.99409	.99418	.99426	.99435	5.8
5.9	.99350	.99361	.99372	.99382	.99393	.99403	.99413	.99423	.99432	.99442	.99451	.99459	.99468	5.9
6.0	.99380	.99391	.99402	.99413	.99424	.99434	.99444	.99454	.99464	.99473	.99482	.99490	.99499	6.0





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