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## A MANUAL, <br> CONTAINING

## TABLES

> TO BE USED BY THE

## REVENUE OFFICERS OF THE UNITED STATES,

WITH

## GLASS HYDROMETERS,

INDICATING THE PER CENTS BY VOLUME OF

ALCOHOL IN SPIRITUOUS LIQUORS,
FOR
DETERMINING TIIEIR RELATIVE VALUES, \&c.

CALCULATED BY<br>ehnow<br>Prof. n! S. McCULLOH,

Messrs. WOODS BAKER and J. B. REYNOLDS, Assistants;

UNDER THE BUPREINTEMDENCE OF

Prof. A. D. BACHE.

## PRINTED BY AUTHORITY OF THE

TREASURY DEPARTMENT OF THE UNITED STATES.
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## PREFACE.

The following tables have been computed from data observed with the greatest skill and care; and the calculations were, in every instance, verified by causing them to be made at the same time independently by two persons. It is, therefore, believed that they are free from errors.

The work was undertaken by request of the Secretary of the Treasury, and has been executed by Prof. R. S. McCulloh, under the general direction and control of Prof. A. D. Bache, Superintendent of Weights, Measures, and Balances.

Those who desire full information with reference either to the fundamental data upon which these tables are based, or to the methods employed in their calculation, may refer to Sen. Doc. No. 50, 1st Sess. 30th Cong. and to a supplementary report submitted with this manual to the Treasury Department.

## EXPLANATION OF THE TABLES,

AND DIRECTIONS FOR THEIR USF.

## TABLE I.

TRUE PER CENTS.
This table shows the true per cent. of alcohol by volume, or the number of gallons of pure alcohol in 100 gallons of spirit, for every indication of the hydrometer, and every degree of temperature from $20^{\circ}$ to $100^{\circ}$ of Fahrenheit's thermometer.

Provided, that the number of gallons, or the volumes, be measured at the standard temperature of $60^{\circ}$ of Fahrenheit's thermometer.

Example.
Suppose a cask of spirits to have been gauged at the temperature of $60^{\circ}$ Fahr., and $\triangle 2$
the liquor contained to have been found to be precisely 90 gallons at that temperature. Also, suppose a portion of the spirit, when tested with the hydrometer, at the temperature of $51^{\circ}$ Fahr., to have given an indication of 48 ; then we find by the table 49.99 exactly, or 50 nearly, to be the corresponding true per cent. of alcohol ; hence $44 \cdot 99$, or 45 gallons nearly, will be the quantity of alcohol upon which the value of the spirit depends and duty is to be levied.

Remarl. As the operations of gauging are not to be depended upon for the measurement of quantities so small as hundredths of the gallon, the officers of the revenue should, in every instance, carry their calculations only to tenths of the gallon. Thus any quantity greater than 44.85 , and less than 44.95 , should be estimated at 44.90 only; and any quantity between 44.95 and 45.05 at 45.00 .

## TABLE II.

## VOLUMES.

What we have said above has been on the supposition that the gauging of spirits has been performed at the temperature of $60^{\circ}$ Fahr. ;a condition which in practice cannot be realized, except in a very few accidental instances.

That an increase of heat causes liquids to expand in volume, and a decrease produces contraction, is a familiar truth. Hence the gauged quantity of the same liquor in a cask varies with its temperature, and it is necessary to refer all measurements to some assumed standard temperature, such as $60^{\circ}$ Fahrenheit; or, in other words, to reduce the quantities measured at other degrees of temperature to what they would have been if measured at a given temperature. Table II. has been constructed for this purpose; it shows at once the volume which

1000 gallons of spirit, measured at any temperature from $20^{\circ}$ to $100^{\circ} \mathrm{Fahr}$., would become if brought to the temperature of $60^{\circ}$ Fahr., the true per cent. or strength being known.

## Example.

Suppose that a cask of rum is found by gauging to contain 100 gallons, the temperature of the liquor being $29^{\circ}$ Fahr., and the observed indication of the hydrometer 60 per cent. Then, by Table I., we see that the true per cent. of this liquor is $6 \varnothing \cdot 60$; and by Table II., that the 100 gallons at $29^{\circ}$ Fahr. would expand to 101.44 gallons at $60^{\circ}$ Fahr. Hence $101 \cdot 44$ multiplied by $6 \varnothing \cdot 6$ per cent. gives 6147 gallons (or practically 61.5) as the quantity of pure alcohol in the cask.

These calculations are simple, but to render their performance by the revenue officers unnecessary, as well as to prevent errors, they have been made and embodied in the following table of Commercial Values; which alone is tu be used in levying duties.

## TABLE III.

COMMERCIAL VALUES.
This table is a combination of Tables I. and II. It gives at once, for any gauged quantity, particular temperature and corresponding indication of the hydrometer, the proportion, or per cent., of that quantity, which is pure alcohol. As the commercial values of liquors are proportional to their quantities and strengths, or to the total amount of alcohol they contain, this table is consequently one by which spirits may be bought and sold, and duties justly levied.

In the use of this table, it should be particularly observed that both the gauging and the proving must be performed at one and the same temperature.

## Example 1.

Suppose a cask to contain 100 gallons of whiskey gauged at $70^{\circ}$ Fahr., and for which the corresponding indication is 10 upon the stem of the hydrometer. Then we see, at once, by Table III., that $9 \cdot 06$, or practically $9 \cdot 1$ gallons, is the quantity of alcohol in the 100 gallons of whiskey, which fixes its value.

## Example 2.

Suppose 120 gallons to be the gauged quantity of spirit in a cask; $67^{\circ}$ Fahr. the temperature of the liquor; and 59 the indication of the hydrometer. Then 57.5 per cent. of the 120 gallons, or 69 gallons, is the quantity of pure alcohol in the cask.

The above is all that is necessary to permit any one to comprehend the nature and general mode of using these tables. Simple examples have been purposely selected to render this explanation as clear as possible. In practice, however, it will happen constantly that more
complicated cases will arise ; the observed temperatures ánd indications will be intermediate to whole degrees. In such instances, to arrive at the exact result, calculations become necessary. The following are examples of all possible particular cases.

Example A.
The observed temperature being a whole number, but the indication fractional. Let $29^{\circ}$ Fahr. be the temperature, and $60 \frac{1}{3}$ the indication. Then we find, opposite the indication 60, in Table III., the value $67 \cdot 61$, and for the indication 61 the corresponding value 68.57 ; between which values 0.96 is the difference ; one third of which difference, or 0.32 , must therefore be added to 67.61 ; making 67.93 , for the true value of the liquor.

## Example B.

The temperature being fractional, but the indication integral. Let $29 \frac{1}{2}^{\circ}$ Fahr. be the temperature, and 58 the indication. Then 65.72 is the value for $29^{\circ}$ Fahr., and 65.44
that for $30^{\circ}$; the difference being 0.28 , we have, by proportion, 0.14 for the number to be subtracted from $65 \cdot 72$ to obtain 65.58 , the exact value.

## Example C.

Both the temperature and the indication being fractional. Let $68 \frac{1}{4}$ be the observed indication, and $28 \frac{1}{2}^{\circ}$ Fahr. the temperature. Then, for the indication 68, we find, for the temperatures $28^{\circ}$ and $29^{\circ}$, the respective values 75.64 and 75.38 ; which give, by proportion, 75.51 for $28 \frac{1_{2}}{}{ }^{\circ}$. Similarly, for the indication 69 , we obtain, for the temperature $28 \frac{1}{2}^{\circ}$, the value $76 \cdot 43$. These two results give, by proportion, $75 \cdot 74$ for the value corresponding to $68 \frac{1}{4}$, the observed indication.

To avoid such calculations as those just given, and cause uniformity of practice in the collection of the revenue, it may be well to neglect fractions in observing temperatures and indications. Any temperature, for ex-
ample, greater than $49 \frac{1}{2}^{\circ}$ and less than $50 \frac{1}{2}^{\circ}$, should be ássumed to be $50^{\circ}$; and similarly, any indication greater than $44 \frac{1}{2}$ and less than $45 \frac{1}{2}$ would be considered the same as though 45 were the observed number.

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## TABLE I.

Showing the true per cents by volume of alcohol contained in spirituous liquors for any indication of the hydrometer, and any temperature between $20^{\circ}$ and $100^{\circ}$ of Fahrenheit's thermometer.

By the term true per cent. by volume, is signified the ratio of the volume of the contained alcohol, at $60^{\circ}$ Fahrenheit, to the volume of the liquor itself measured at the same temperature.

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21^{\circ}-25^{\circ}
$$

TRUE PER CENT.

| 㦴: | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $0 \cdot 79$ | 0.83 | 0.88 | 0.92 | $0 \cdot 97$ |
| 2 | 1.80 | 1.86 | 1.91 | $1 \cdot 97$ | 2.02 |
| 3 | 2.84 | $2 \cdot 90$ | $2 \cdot 95$ | 3.01 | 3.06 |
| 4 | $3 \cdot 90$ | 3.95 | 4.01 | 4.06 | $4 \cdot 11$ |
| 5 | 4.95 | $5 \cdot 00$ | $5 \cdot 06$ | $5 \cdot 11$ | $5 \cdot 17$ |
| 6 | $6 \cdot 06$ | $6 \cdot 12$ | $6 \cdot 17$ | $6 \cdot 23$ | $6 \cdot 28$ |
| 7 | 7•19 | $7 \cdot 25$ | $7 \cdot 30$ | $7 \cdot 36$ | $7 \cdot 41$ |
| 8 | $8 \cdot 33$ | $8 \cdot 38$ | $8 \cdot 44$ | $8 \cdot 49$ | $8 \cdot 54$ |
| 9 | $9 \cdot 47$ | 9.52 | 9.57 | $9 \cdot 62$ | $9 \cdot 67$ |
| 10 | 10.60 | 10.65 | 10.69 | 10.74 | 10.78 |
| 11 | 11.93 | 11.98 | 12.02 | 12.07 | 12.11 |
| 12 | 13.21 | 13.25 | 13.29 | 13.33 | 13.37 |
| 13 | 14.49 | 14.52 | 14.56 | 14.59 | 14.63 |
| 14 | 15.77 | 15.80 | 15.82 | 15.85 | 15.88 |
| 15 | 17.19 | 17.20 | 17.22 | 17.23 | 17.24 |
| 16 | 18.69 | 18.70 | 18.70 | 18.71 | 18.71 |
| 17 | 20.20 | 20.19 | 20.17 | 20.16 | 20.15 |
| 18 | 21.69 | 21.67 | 21.64 | 21.62 | 21.59 |
| 19 | 23.31 | 23.26 | 23.22 | $23 \cdot 17$ | $23 \cdot 13$ |
| 20 | 24.99 | 24.93 | 24.86 | 24.80 | 24.73 |
| 21 | $26 \cdot 72$ | $26 \cdot 62$ | 26.53 | 26.43 | 26.34 |
| 22 | 28.43 | $28 \cdot 31$ | 28.20 | 28.08 | 27.96 |
| 23 | 30.02 | 29.87 | 29.73 | 29.58 | 29.44 |
| 24 | 31.52 | 31-37 | 31.21 | 31.06 | 30.90 |
| 25 | 33.14 | 32.94 | 32.75 | 32.55 | $32 \cdot 36$ |

$21^{\circ}-25^{\circ}$
TRUE PER CENT.

| $\mid$ | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 34.97 | 34.95 | 34.92 | 34.90 | 33.88 |
| 27 | $36 \cdot 38$ | $36 \cdot 13$ | $35 \cdot 89$ | $35 \cdot 64$ | $35 \cdot 39$ |
| 28 | $38 \cdot 00$ | $37 \cdot 72$ | 37.45 | $37 \cdot 17$ | $36 \cdot 89$ |
| 29 | 39.58 | $39 \cdot 28$ | 38.97 | $38 \cdot 67$ | $38 \cdot 37$ |
| 30 | 41.14 | $40 \cdot 81$ | $40 \cdot 48$ | $40 \cdot 15$ | $39 \cdot 82$ |
| 31 | $42 \cdot 70$ | $42 \cdot 33$ | 41.97 | 41.60 | 41.24 |
| 32 | 43.95 | 43.57 | $43 \cdot 18$ | $42 \cdot 80$ | 42.42 |
| 33 | $45 \cdot 22$ | 44.82 | 44.42 | 44.02 | $43 \cdot 62$ |
| 34 | $46 \cdot 34$ | 45.93 | $45 \cdot 53$ | $45 \cdot 12$ | $44^{\prime} 7^{2}$ |
| 35 | 47-39 | $46 \cdot 97$ | $46 \cdot 56$ | $46 \cdot 14$ | $45 \cdot 72$ |
| 36 | $48 \cdot 47$ | $48 \cdot 04$ | $47 \cdot 61$ | $47 \cdot 18$ | $46 \cdot 75$ |
| 37 | $49 \cdot 60$ | $49^{1} 17$ | $48 \cdot 73$ | $48 \cdot 30$ | 47.86 |
| 38 | $50 \cdot 76$ | $50 \cdot 32$ | $49 \cdot 87$ | $49 \cdot 43$ | $48 \cdot 98$ |
| 39 | 51.37 | 50.94 | 50.51 | $50 \cdot 08$ | $49 \cdot 65$ |
| 40 | 52.05 | 51.64 | 51.23 | $50 \cdot 82$ | 50.41 |
| 41 | 52.76 | $52 \cdot 36$ | 51.97 | 51.57 | 51.17 |
| 42 | 53.53 | $53 \cdot 14$ | $52 \cdot 76$ | $52 \cdot 37$ | 51.99 |
| 43 | 54.25 | 53.88 | 53.50 | $53 \cdot 13$ | $52 \cdot 76$ |
| 44 | 55.06 | $54 \cdot 69$ | 54.33 | 53.96 | 53.60 |
| 45 | 55.88 | $55 \cdot 53$ | $55 \cdot 18$ | $54 \cdot 83$ | 54.48 |
| 46 | $56 \cdot 72$ | $56 \cdot 37$ | 56.02 | $55 \cdot 67$ | $55 \cdot 32$ |
| 47 | 57.52 | 57-18 | $56 \cdot 84$ | $56 \cdot 50$ | $56 \cdot 16$ |
| 48 | $58 \cdot 27$ | 57.94 | $57 \cdot 62$ | $57 \cdot 29$ | 56.96 |
| 49 | 59.06 | $58 \cdot 74$ | $58 \cdot 43$ | $58 \cdot 11$ | 57.80 |
| 50 | 59.90 | 59.59 | 59.29 | $58 \cdot 98$ | $58 \cdot 67$ |

TRUE PER CENT.

| $\left\lvert\, \begin{gathered} \text { ed } \\ \text { 宫品 } \\ 0 \end{gathered}\right.$ | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $60 \cdot 76$ | $60 \cdot 46$ | $60 \cdot 16$ | 59.86 | 59.56 |
| 52 | $61 \cdot 65$ | $61 \cdot 35$ | $6 \mathrm{I} \cdot 05$ | $60 \cdot 75$ | $60 \cdot 45$ |
| 53 | 62.52 | $62 \cdot 23$ | 61.93 | $61 \cdot 64$ | $61 \cdot 35$ |
| 54 | $63 \cdot 32$ | 63.04 | $62 \cdot 75$ | $62 \cdot 47$ | $62 \cdot 19$ |
| 55 | $64^{\circ} \mathrm{I}$ I | $63 \cdot 84$ | 63.57 | $63 \cdot 30$ | 63.03 |
| 56 | 65.00 | 64.73 | 64.47 | - 64.20 | 63.93 |
| 57 | 65.88 | $65 \cdot 61$ | $65 \cdot 35$ | $65 \cdot 08$ | 64.82 |
| 58 | $66 \cdot 77$ | 66.51 | $66 \cdot 25$ | 65.99 | $65 \cdot 73$ |
| 59 | $67 \cdot 66$ | $67 \cdot 41$ | $67 \cdot 16$ | $66 \cdot 91$ | $66 \cdot 66$ |
| 60 | $68 \cdot 53$ | $68 \cdot 29$ | 68.04 | 67.80 | 6755 |
| 61 | 69.45 | 69.20 | $68 \cdot 96$ | $68 \cdot 71$ | 68.47 |
| 62 | $70 \cdot 40$ | $70 \cdot 16$ | 69.91 | $69 \cdot 67$ | $69 \cdot 43$ |
| 63 | 71.29 | 71.05 | 70.82 | $70 \cdot 58$ | 70.34 |
| 64 | $72 \cdot 22$ | 71.99 | 71.75 | 71.52 | 71.28 |
| 65 | $73 \cdot 16$ | 72.93 | $72 \cdot 69$ | 72.46 | $72 \cdot 23$ |
| 66 | $74 \cdot 10$ | 73.87 | $73 \cdot 65$ | 73.42 | 73.19 |
| 67 | 75.09 | 74.87 | 74.64 | 74.42 | 74.19 |
| 68 | 75.98 | $75 \cdot 75$ | 75.53 | $75 \cdot 30$ | 75.08 |
| 69 | $76 \cdot 83$ | $76 \cdot 61$ | $76 \cdot 39$ | $76 \cdot 17$ | 75.95 |
| 70 | 77.74 | $77 \cdot 52$ | $77 \cdot 31$ | 77.09 | 76.87 |
| 71 | $78 \cdot 68$ | $78 \cdot 46$ | 78.24 | $78 \cdot 02$ | 77.80 |
| 72 | 79.58 | $79 \cdot 37$ | $79^{\circ} 15$ | $78 \cdot 94$ | 78:73 |
| 73 | 80:51 | $80 \cdot 30$ | 80.08 | 79.87 | 79.66 |
| 74 | $8 \mathrm{I} \cdot+2$ | $81 \cdot 21$ | $8 \mathrm{r} \cdot 01$ | 80.80 | 80.60 |
| 75 | $82 \cdot 33$ | $82 \cdot 13$ | 81.92 | $81 \cdot 72$ | 3151 |

$21^{\circ}-25^{\circ}$
TRUE PER CENT.

| $\mid$ | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $83 \cdot 26$ | $83 \cdot 06$ | : $82 \cdot 87$ | : 82.67 | 82.47 |
| 77 | 84.21 | 84.01 | $83 \cdot 81$ | 83.61 | 83.41 |
| 78 | $85 \cdot 15$ | 84.96 | 84.76 | 84.57 | 84.37 |
| 79 | $86 \cdot 09$ | $85 \cdot 89$ | 85.70 | $85 \cdot 50$ | 85.30 |
| 80 | $87 \cdot 02$ | $86 \cdot 83$ | 86.63 | $86 \cdot 44$ | 86.24 |
| 81 | 87.97 | 87.78 | 87.58 |  |  |
| 82 | 88.92 | $88 \cdot 72$ | 88.53 | $88 \cdot 33$ |  |
| 83 | 89.86 | 89.67 | $89 \cdot 48$ | 89.29 | $89 \cdot 10$ |
| 84 | 90.76 | 90.57 | 90.39 | 90.20 | 90.01 |
| 85 | 91.64 | 91.46 | 91.27 | 91.09 | 90.90 |
| 86 | $92 \cdot 53$ | $92 \cdot 35$ | 92.18 | 92.00 | 91.82 |
| 87 | 93.41 | $93 \cdot 24$ | 93.06 | $92 \cdot 89$ | 92.71 |
| 88 | 94.20 | $94 \cdot 12$ | 93.94 | 93.77 | 93.59 |
| 89 | 95:19 | $95 \cdot 02$ | $9+\cdot 85$ | $94 \cdot 68$ | 94.51 |
| 90 | 96.02 | $95 \cdot 86$ | $95 \cdot 69$ | 95:53 | $95 \cdot 37$ |
| 91 | $96 \cdot 85$ | $96 \cdot 69$ | $96 \cdot 52$ | $96 \cdot 36$ | 96.20 |
| 92 | 97.72 | $97 \cdot 57$ | 97.41 | 97-26 | $97 \cdot 10$ |
| 93 | 98.62 | $98 \cdot 46$ | $98 \cdot 31$ | $98 \cdot 16$ | 98.00 |
| 94 | $99 \cdot 42$ | $99 \cdot 27$ | 99*12 | $98 \cdot 97$ | 93.82 |
| 95 | 100:21 | 100.05 | $99^{\circ} 9^{2}$ | 9977 | 99.63 |
| 96 | 100.99 | $100 \cdot 84$ | $100 \cdot 70$ | 100.55 | $100 \cdot 41$ |
| 97 | $101 \cdot 74$ | 101.60 | 101.45 | 101-3I | 101.17 |
| 98 | 102.53 | 102.40 | $102 \cdot 28$ | 102.15 |  |
| 99 | 103.35 | 103.23 | $103 \cdot 12$ | 103.00 | 102.88 |
| 100 | 104.20 | 104.03 | 103.97 | $103 \cdot 85$ | 103.74 |

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26^{\circ}-30^{\circ}
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## TRUE PER CENT.

|  | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I.05 | I•13 | 1.21 | I. 29 | 1 137 |
| 2 | 2.08 | $2 \cdot 15$ | $2 \cdot 2 \mathrm{I}$ | $2 \cdot 28$ | $2 \cdot 34$ |
| 3 | $3 \cdot 12$ | 3.18 | 8.23 | $3 \cdot 29$ | $3 \cdot 35$ |
| 4 | $4 \cdot 16$ | 4.21 | 4.27 | $4 \cdot 32$ | 4.37 |
| 5 | $5 \cdot 21$ | $5 \cdot 26$ | $5 \cdot 30$ | $5 \cdot 35$ | $5 \cdot 39$ |
| 6 | $6 \cdot 32$ | $6 \cdot 37$ | 6.41 | $6 \cdot 46$ | $6 \cdot 50$ |
| 7 | $7 \cdot 45$ | $7 \cdot 49$ | $7 \cdot 54$ | 7.58 | $7 \cdot 62$ |
| 8 | $8 \cdot 58$ | $8 \cdot 62$ | $8 \cdot 65$ | $8 \cdot 69$ | $8 \cdot 73$ |
| 9 | -9.70 | $9 \cdot 74$ | $9 \cdot 77$ | $9 \cdot 8 \mathrm{I}$ | 9.84 |
| 10 | 10.81 | 10.84 | 10.88 | 10.91 | 10.94 |
| 11 | 12.13 | $12 \cdot 16$ | $12 \cdot 18$ | 12.21 | 12.23 |
| 12 | 13.39 | 13.41 | 13.43 | 13.45 | 13.47 |
| 13 | 14.64 | 14.65 | 14.66 | 14.67 | 14.68 |
| 14 | 15.88 | $15 \cdot 88$ | $15 \cdot 89$ | 15.89 | 15.89 |
| 15 | 17.23 | 17.23 | 17.22 | 17.22 | 17.21 |
| 16 | 18.69 | 18.67 | 18.64 | 18.62 | 18.60 |
| 17 | $20 \cdot 11$ | 20.07 | 20.03 | $20 \cdot 00$ | 19.95 |
| 18 | 21.53 | 21.48 | 21.42 | 21.37 | 21.31 |
| 19 | 23.06 | 22.98 | 22.91 | 22.83 | $22 \cdot 76$ |
| 20 | 24.64 | 24.55 | 24.45 | 24.36 | 24.27 |
| 21 | 26.23 | $26 \cdot 11$ | 26.00 | $25 \cdot 88$ | $25 \cdot 77$ |
| 22 | 27.82 | $27 \cdot 68$ | 27.55 | 27.41 | 27.27 |
| 23 | 29.28 | $29 \cdot 12$ | $28 \cdot 96$ | 28.80 | $28 \cdot 64$ |
| 24 | $30 \cdot 70$ | 30.49 | 30.29 | 30.08 | 29.98 |
| 25 | $32 \cdot 16$ | 31.96 | 31.76 | 31.56 | 31-36 |

TRUE PER CENT.

| 密感 | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 33.65 | 33.42 | 33.20 | 32.97 | $32 \cdot 74$ |
| 27 | $35 \cdot 14$ | $34 \cdot 89$ | 34.65 | 34.40 | $34 \cdot 15$ |
| 28 | $36 \cdot 62$ | $36 \cdot 34$ | $36 \cdot 07$ | $35 \cdot 79$ | $35 \cdot 5^{2}$ |
| 29 | 38.07 | 37•77 | 37.47 | $37 \cdot 17$ | $36 \cdot 87$ |
| 30 | 39.50 | $39 \cdot 17$ | $38 \cdot 85$ | $38 \cdot 52$ | $38 \cdot 20$ |
| 31 | $40 \cdot 89$ | $40 \cdot 54$ | $40 \cdot 20$ | $39 \cdot 85$ | 39.50 |
| 32 | $42 \cdot 06$ | $41 \cdot 69$ | $41 \cdot 33$ | $40 \cdot 96$ | $40 \cdot 60$ |
| 33 | $43 \cdot 25$ | $42 \cdot 88$ | $42 \cdot 50$ | $42 \cdot 13$ | $41 \cdot 76$ |
| 34 | $44 \cdot 34$ | $43 \cdot 96$ | 43.59 | $43 \cdot 21$ | $42 \cdot 83$ |
| 35 | $45 \cdot 34$ | 44.95 | 44.57 | $44 \cdot 18$ | $43 \cdot 80$ |
| 36 | $46 \cdot 37$ | $45 \cdot 98$ | $45 \cdot 60$ | $45^{\circ} \mathrm{I}$ I | $44 \cdot 83$ |
| 37 | $47 \cdot 46$ | $47 \cdot 07$ | $46 \cdot 67$ | $46 \cdot 28$ | $45 \cdot 88$ |
| 38 | $43 \cdot 57$ | $48 \cdot 16$ | $47 \cdot 75$ | $47 \cdot 34$ | $46 \cdot 93$ |
| 39 | -49.26 | $48 \cdot 88$ | $48 \cdot 49$ | $48 \cdot \mathrm{II}$ | $47 \cdot 72$ |
| 40 | 50.03 | $49 \cdot 65$ | $49 \cdot 27$ | $48 \cdot 89$ | $48 \cdot 5 \mathrm{I}$ |
| 41 | 50.80 | $50 \cdot 44$ | 50.07 | $49 \cdot 71$ | $49 \cdot 34$ |
| 42 | $51 \cdot 63$ | $5 \mathrm{I} \cdot 28$ | 50.92 | 50.57 | 50.21 |
| 43 | $52 \cdot 42$ | 52.08 | 51.73 | $51 \cdot 39$ | 51.05 |
| 44 | 53.27 | $52 \cdot 94$ | $52 \cdot 61$ | 52.28 | 51.95 |
| 45 | 54.15 | 53.82 | 53.49 | $53 \cdot 16$ | 52.83 |
| 46 | $55 \cdot 00$ | $54 \cdot 68$ | 54.35 | 54.03 | 53.71 |
| 47 | $55 \cdot 85$ | $55 \cdot 54$ | 55.22 | 54.91 | 54.60 |
| 48 | 56.66 | $56 \cdot 36$ | 56.05 | $55 \cdot 75$ | $55 \cdot 45$ |
| 49 | 57.50 | $57 \cdot 21$ | 56.91 | $56 \cdot 62$ | $56 \cdot 32$ |
| 50 | $58 \cdot 3^{8}$ | $58 \cdot 09$ | 57.80 | 57.51 | $57 \cdot 22$ |

$26^{\circ}-30^{\circ}$
TRUE PER CENT.

| 呩家 | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $59 \cdot 28$ | 59.00 | $58 \cdot 71$ | $58 \cdot 43$ | $58 \cdot 15$ |
| 52 | $60 \cdot 17$ | 59.90 | $59 \cdot 62$ | $59 \cdot 35$ | 59.07 |
| 53 | $61 \cdot 07$ | 60.80 | 60.52 | $60 \cdot 25$ | 59.97 |
| 54 | 61.92 | 61.66 | 6I•39 | 6I.13 | $60 \cdot 86$ |
| 55 | $62 \cdot 77$ | $62 \cdot 52$ | $62 \cdot 26$ | 62.01 | 61.75 |
| 56 | 63.67 | 63.41 | $63 \cdot 15$ | - 62.89 | 62.63 |
| 57 | 64.57 | $64 \cdot 32$ | 64.06 | $63 \cdot 81$ | 63.56 |
| 58 | 65.49 | $65 \cdot 24$ | 65.00 | 64.75 | 64.51 |
| 59 | $66 \cdot 4^{2}$ | $66 \cdot 17$ | 65.93 | $65 \cdot 68$ | $65 \cdot 44$ |
| 60 | $67 \cdot 31$ | 67.07 | $66 \cdot 84$ | $66 \cdot 60$ | $66 \cdot 36$ |
| 61 | +68.24 | 68.00 | $67 \cdot 77$ | $67 \cdot 53$ |  |
| 62 | $69 \cdot 20$ | $68 \cdot 96$ | $68 \cdot 73$ | 68.49 | $68 \cdot 26$ |
| 63 | $70 \cdot 11$ | 69.88 | 69.65 | $69 \cdot 42$ | $69 \cdot 19$ |
| 64 | 71.05 | 70.83 | $70 \cdot 60$ | $70 \cdot 38$ | $70 \cdot 15$ |
| 65 | $72 \cdot 01$ | 71.79 | 71.56 | $71 \cdot 34$ | $71 \cdot 12$ |
| 66 | $72 \cdot 97$ | $72 \cdot 75$ | 72.54 | $72 \cdot 32$ | $72 \cdot 10$ |
| 67 | 73.97 | $73 \cdot 75$ | $73 \cdot 52$ | $73 \cdot 30$ | 73.08 |
| 68 | 74.86 | 74.64 | 74.42 | 74.20 | 73.98 |
| 69 | $75 \cdot 74$ | 75.53 | $75 \cdot 31$ | $75 \cdot 10$ | $74 \cdot 89$ |
| 70 | $76 \cdot 66$ | 76.45 | $76 \cdot 24$ | 76.03 | $75 \cdot 82$ |
| 71 | 77.59 | $77 \cdot 38$ | $77 \cdot 18$ | $76 \cdot 97$ | $76 \cdot 76$ |
| 72 | $78 \cdot 52$ | $78 \cdot 32$ | $78 \cdot 11$ | $77 \cdot 91$ | $77 \cdot 70$ |
| 73 | $79 \cdot 46$ | $79 \cdot 25$ | 79.05 | $78 \cdot 84$ | $78 \cdot 64$ |
| 74 | $80 \cdot 39$ | $80 \cdot 19$ | 79.98 |  | 79.57 |
| 75 | $81 \cdot 32$ | 81.12 | 80.93 | 80.73 | 80.54 |

true per cent.

|  | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 82.27 | 82.08 | 8 I .88 | 81.69 | 81.49 |
| 77 | 83.22 | 83.03 | 82.83 | 82.64 | 82.45 |
| 78 | $84 \cdot 18$ | 83.98 | 83.79 | 83.59 | 83.40 |
| 79 | $85 \cdot 11$ | 84.92 | 84.72 | 84.53 | 84.34 |
| 80 | 86.05 | 85.86 | 85.68 | 85.49 | 85.30 |
| 81 | 87.01 | 86.82 | 86.63 | $86 \cdot 44$ | $86 \cdot 25$ |
| 82 | 87.95 | 87.76 | 87.58 | 87.39 | 87.20 |
| 83 | 88.91 | 88.72 | 88.54 | 88.35 | $88 \cdot 16$ |
| 84 | 89.83 | 89.65 | 89.46 | 89.28 | $89 \cdot 10$ |
| 85 | 90.72 | 90.54 | $90 \cdot 37$ | $90 \cdot 19$ | 90.01 |
| 86 | 91.64 | 91.47 | 91.29 | $91 \cdot 12$ | 90.94 |
| 87 | 92.54 | $92 \cdot 37$ | $92 \cdot 19$ | 92.02 | 91.85 |
| 88 | 93.42 | 93.25 | 93.08 | 92.91 | 92.74 |
| 89 | 94.34 | $94 \cdot 17$ | 94.00 | $93 \cdot 83$ | $93 \cdot 66$ |
| 90 | 95.20 | $95 \cdot 04$ | 94.87 | 94.71 | 94.54 |
| 91 | 96.04 | 95.88 | $95 \cdot 72$ | 95.56 | 95.40 |
| 92 | 96.94 | 96.79 | 96.63 | 96.48 | 96.32 |
| 93 | 97.85 | 97.69 |  | 97.38 | 97.23 |
| 94 | 98.67 | 98.53 | $98 \cdot 38$ | 98.24 | 98.09 |
| 95 | 99.49 | 99.35 | 99.20 | 99.06 | 98.92 |
| 96 | $100 \cdot 27$ | $100 \cdot 13$ | 99.98 | $99 \cdot 84$ | 99.70 |
| 97 | 101.04 | $100 \cdot 91$ | $100 \cdot 79$ | $100 \cdot 66$ | $100 \cdot 53$ |
| 98 | 101.91 | 10179 | 101.66 | 10154 | 101.42 |
| 99 | 102.76 | 102.65 | 102.53 | $102 \cdot 42$ | $102 \cdot 30$ |
| 100 | 103.63 | 103.52 | 103.40 | 103.29 | $103 \cdot 18$ |

$$
31^{\circ}-35^{\circ}
$$

## TRUE PER CENT.

|  | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| -1 | I.44 | 151 | 1.58 | 1.65 | $1 \cdot 72$ |
| 2 | $2 \cdot 38$ | $2 \cdot 42$ | 2.47 | 2.51 | 2.55 |
| 3 | $3 \cdot 39$ | $3 \cdot 42$ | $3 \cdot 46$ | $3 \cdot 49$ | 3.53 |
| 4 | $4 \cdot 40$ | $4 \cdot 43$ | $4 \cdot 46$ | $4 \cdot 49$ | 4.52 |
| 5 | $5 \cdot 42$ | $5 \cdot 45$ | $5 \cdot 47$ | $5 \cdot 50$ | $5 \cdot 53$ |
| 6 | $6 \cdot 53$ | $6 \cdot 56$ | $6 \cdot 58$ | $6 \cdot 61$ | $6 \cdot 64$ |
| 7 | $7 \cdot 65$ | $7 \cdot 67$ | $7 \cdot 70$ | $7 \cdot 72$ | $7 \cdot 75$ |
| 8 | 8.75 | $8 \cdot 77$ | $8 \cdot 79$ | $8 \cdot 82$ | 84 |
| 9 | $9 \cdot 86$ | $9 \cdot 88$ | $9 \cdot 89$ | 9*9I | 9.93 |
| 10 | 10.95 | 10.96 | 10.98 | 10.99 | 11.00 |
| 11 | 12.24 | 12.24 | 12.25 | 12.25 | $12 \cdot 26$ |
| 12 | 13.47 | 13.47 | 13.47 | 13.47 | 13.47 |
| 13 | 14.67 | 14.66 | I 4.65 | 14.64 | 14.63 |
| 14 | 15.87 | $15 \cdot 85$ | 15.83 | 15.81 | 1579 |
| 15 | $17 \cdot 18$ | $17 \cdot 15$ | 17.13 | $17 \cdot 10$ | 17.07 |
| 16 | 18.56 | $18 \cdot 52$ | $18 \cdot 47$ | 18.43 | $18 \cdot 39$ |
| 17 | 19.89 | 19.84 | 19.78 | 19.73 | 19.67 |
| 18 | 21.24 | $2 \mathrm{I} \cdot 17$ | $2 \mathrm{I} \cdot 09$ | 21.02 | 20.95 |
| 19 | 22.67 | 22.58 | 22.49 | 22.40 | $22 \cdot 31$ |
| 20 | $24 \cdot 16$ | 24.04 | 23.93 | 23.81 | 23.70 |
| 21 | $25 \cdot 64$ | 25.51 | 25.39 | $25 \cdot 26$ | $25 \cdot 13$ |
| 22 | $27 \cdot 12$ | $26 \cdot 97$ | $26 \cdot 82$ | 26.67 | 26.52 |
| 23 | 28.47 | 28.30 | $28 \cdot 12$ | 27.95 | 27.78 |
| 24 | 29.80 | 29.61 | 29.43 | 29.24 | 29.06 |
| 25 | $31 \cdot 15$ | 30.95 | 30.74 | $30 \cdot 54$ | 30.33 |

TRUE PER CENT.

|  | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 32.51 | $32 \cdot 28$ | 32.06 | 31.83 | 31.60 |
| 27 | 33.90 | $33 \cdot 65$ | 33.40 | $33 \cdot 15$ | 32.90 |
| 28 | $35 \cdot 26$ | 35.00 | 34.73 | 34.47 | $34^{.21}$ |
| 29 | $36 \cdot 58$ | $36 \cdot 29$ | $36 \cdot 01$ | $35 \cdot 72$ | 35.43 |
| 30 | $37 \cdot 89$ | $37 \cdot 58$ | $37 \cdot 27$ | $36 \cdot 96$ | $36 \cdot 65$ |
| 31 | $39^{117}$ | $38 \cdot 85$ | $38 \cdot 52$ | $38 \cdot 20$ | 37.87 |
| 32 | $40 \cdot 27$ | 39.94 | $39 \cdot 61$ | $39 \cdot 28$ | $38 \cdot 95$ |
| 33 | 41.41 | 41.06 | $40 \cdot 72$ | $40 \cdot 37$ | $40 \cdot 02$ |
| 34 | $42 \cdot 47$ | $42 \cdot 11$ | $41 \cdot 76$ | 41.40 | 41.04 |
| 35 | $43 \cdot 45$ | $44 \cdot 10$ | $42 \cdot 74$ | $42 \cdot 39$ | 42.04 |
| 36 | 44.48 | $44^{112}$ | 43.77 | 43.41 | 43.06 |
| 37 | 45.51 | $45 \cdot 14$ | 44.77 | 44.40 | 44.03 |
| 38 | $46 \cdot 57$ | $46 \cdot 21$ | $45 \cdot 86$ | $45 \cdot 50$ | $45 \cdot 14$ |
| 39 | $47 \cdot 36$ | $47 \cdot 00$ | $46 \cdot 64$ | $46 \cdot 28$ | 45.92 |
| 40 | $48 \cdot 17$ | $47 \cdot 83$ | $47 \cdot 48$ | $47 \cdot 14$ |  |
| 41 | $49^{\circ} \mathrm{O}$ | $48 \cdot 67$ | $48 \cdot 34$ | $48 \cdot 00$ |  |
| 42 | 49.88 | $49 \cdot 56$ | $49^{\cdot 23}$ | $48 \cdot 91$ | $48 \cdot 58$ |
| 43 | 50.74 | $50 \cdot 42$ | 50.11 | $49 \cdot 79$ | $49 \cdot 48$ |
| 44 | 51.64 | $51 \cdot 32$ | 51.01 | 50.69 | $50 \cdot 38$ |
| 45 | 52.52 | $52 \cdot 21$ | 51.90 | 51.59 | 51.28 |
| 46 | 53.41 | $53 \cdot 11$ | $52 \cdot 80$ | 52.50 | $52 \cdot 20$ |
| 47 | 54.31 | 54.02 | 53.72 | 53.43 | $53 \cdot 14$ |
| 48 | $55^{117}$ | 54.88 | $54 \cdot 60$ | 54.31 | 54.03 |
| 49 | 5.6 .04 | 55.77 | $55 \cdot 49$ | $55 \cdot 22$ | 54.94 |
| 50 | $56 \cdot 95$ | $56 \cdot 68$ | $56 \cdot 41$ | $56 \cdot 14$ | 55.87 |

$31^{\circ}-35^{\circ}$
TRUE PER CENT．

| 皆菏家 | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 57 | 57．61 | 57 | 57.06 |  |
| 52 | 58 | 58.53 | 58.26 | 57.99 | 57.72 |
| 53 | 59.71 | 59.45 | 59.20 | 58.94 | 58.68 |
| 54 | $60 \cdot 60$ | $60 \cdot 35$ | 60.09 | $59 \cdot 84$ | 58 |
| 55 | 61.50 | 61.25 | 60.99 | $60 \cdot 74$ | 49 |
| 56 | $62 \cdot 39$ | $62 \cdot 14$ | 61.90 | $61 \cdot 65$ | 6 |
| 57 | $63 \cdot 32$ | 63.08 | 62.85 | $62 \cdot 61$ | $62 \cdot 37$ |
| 58 | $64 \cdot 27$ | 64.04 | $63 \cdot 80$ | 63.57 | 63.33 |
| 59 | 65.21 | 64.97 | $64 \cdot 74$ | 64.50 | $64 \cdot 27$ |
| 60 | $66 \cdot 13$ | 65.90 |  | 6； 44 |  |
| 61 | 67 | $66 \cdot 84$ | $66 \cdot 62$ | $66 \cdot 39$ | $66 \cdot 16$ |
| 62 | 68.03 | $67 \cdot 81$ | $67 \cdot 58$ | $67 \cdot 36$ | 3 |
| 63 | 68.97 | 68.75 | 68.53 | 68.31 | 63.09 |
| 64 | 69.93 | 69.71 | 69.50 | $69 \cdot 28$ | 69.06 |
| 65 | 70.90 | $70 \cdot 68$ | 70.47 | $70 \cdot 25$ |  |
| 67 | 71.88 | 71.66 | 71. | 71.23 | 01 |
| 67 | $72 \cdot 86$ | $72 \cdot 65$ | 72.43 | $72 \cdot 22$ |  |
| 68 | 73.7 | 73.55 | $73 \cdot 34$ | 73.12 | 1 |
| 69 | 74.68 | 74.47 | 74. |  |  |
| 70 | 75.61 | 75.40 | 75－19 | 74.98 |  |
| 71 | 76.56 | $76 \cdot 35$ | $76 \cdot 15$ |  |  |
| 72 | 77.50 | 77.30 | 77.09 | 76.89 | 76.69 |
| 73 | 78.44 | $78 \cdot 24$ | 78 | 77.85 | 77.65 |
| 74 | $79 \cdot 38$ | $79 \cdot 18$ | 78.99 | 78.79 | $78 \cdot 60$ |
| 75 | $80 \cdot 34$ | 80.15 | 79.95 | 79.76 | 79.56 |

$31^{\circ}-35^{\circ}$
TRUE PER CENT.

| 家运 | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $81 \cdot 30$ | 81.10 | 80.91 | 80.71 | 80.52 |
| 77 | 82.26 | 82.06 | 81.87 | 81.67 | $81 \cdot 48$ |
| 78 | 83.21 | 83.02 | $82 \cdot 83$ | 82.64 | 82.45 |
| 79 | 84.15 | 83.96 | 83.78 | 83.59 | 83.40 |
| 80 | $85 \cdot 11$ | 84.92 | 84.74 | $8+55$ | $84 \cdot 36$ |
| 81 | 86.07 | $85 \cdot 88$ |  | 85.51 | $85 \cdot 33$ |
| 82 | 87.01 | $86 \cdot 83$ | $86 \cdot 64$ | $86 \cdot 46$ | $86 \cdot 27$ |
| 83 | 87.98 | 87.80 | 87.61 | $87 \cdot 43$ | 87.25 |
| 84 | $88 \cdot 92$ | $88 \cdot 74$ | 88.55 | $88 \cdot 37$ | $88 \cdot 19$ |
| 85 | 89.83 | $89 \cdot 65$ | 89.43 | 89.30 | $89 \cdot 12$ |
| 86 | 90.77 | $90 \cdot 60$ | $90 \cdot 42$ | $90 \cdot 25$ | 90.08 |
| 87 | 91.68 | $91 \cdot 50$ | 91.33 | 91.15 | 90.98 |
| 88 | 92.57 | $92 \cdot 41$ | 92:24 | 92.08 | 91 |
| 89 | 93.50 | $93 \cdot 33$ | 93.17 | 93.00 |  |
| 90 | $94 \cdot 3^{8}$ | $94^{.22}$ | 94.05 | $93 \cdot 89$ | 93.73 |
| 91 | 95-25 | $95 \cdot 10$ | 94.94 | 94.79 | 94.64 |
| 92 | 96.17 | $96 \cdot 01$ | $95 \cdot 86$ | $95 \cdot 70$ | $95 \cdot 55$ |
| 93 | 97.08 | $96 \cdot 94$ | $96 \cdot 79$ | $96 \cdot 65$ | $96 \cdot 50$ |
| 94 | 97.95 | $97 \cdot 8 \mathrm{I}$ | $97 \cdot 66$ | $97 \cdot 52$ | $97 \cdot 38$ |
| 95 | 98.78 | $98 \cdot 64$ | $98 \cdot 5 \mathrm{I}$ | $98 \cdot 37$ | $98 \cdot 23$ |
| 96 | 99.56 | 99.43 | 99*29 | $99 \cdot 16$ | $99 \cdot 02$ |
| 97 | $100 \cdot 41$ | 100.29 | $100 \cdot 16$ | $100 \cdot 04$ | 99.92 |
| 98 | 101.30 | 101.18 | 101.06 | $100 \cdot 94$ | $100 \cdot 82$ |
| 99 | 102-18 | 102.07 | 101.95 | 101.84 | $101 \cdot 72$ |
| 100 | 103.07 | 102.96 | $102 \cdot 85$ | $102 \cdot 74$ | $102 \cdot 63$ |

$36^{\circ}-40^{\circ}$
true per cent.

| 家家 | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | , | 17 | . 80 | 82 |  |
| 2 | $2 \cdot 56$ | $2 \cdot 57$ | $2 \cdot 59$ | . 60 | 61 |
| 3 | 3.54 | 3.55 | $3 \cdot 56$ | -57 | . ${ }^{8}$ |
| 4 | 4.53 | 4.55 | 4.56 | 458 | . 59 |
| 5 | $5 \cdot 54$ | $5 \cdot 55$ | $5 \cdot 56$ | $5 \cdot 57$ | 58 |
| 6 | $6 \cdot 65$ | $6 \cdot 66$ | . 66 | $6 \cdot 67$ | . 68 |
| 7 | 7.75 8.8 | $7 \cdot 76$ | $7 \cdot 76$ | $7 \cdot 77$ | 77 |
| 8 | 8.84 | 8.84 | 8.84 | 8.84 |  |
| 9 | 9.93 | 9.92 | 9.92 | 9.91 | 9.91 |
| 10 | 11.00 | 11.00 | 10.99 | 10.99 | 10.99 |
| 11 | 12.25 | 12.24 | 12.24 | 12.23 | 12.22 |
| 12 | 13.45 | 13.42 | 13.40 | 13.37 | 13.35 |
| 13 | 14.60 | 14.57 | 14.55 | 14.52 | 14.49 |
| 14 | 15.76 | 15.72 | 15.69 | 15.65 | 15.62 |
| 15 | 17.02 | 16.98 | 16.93 | 16.89 |  |
| 16 | 18.33 | 18.27 | 18.21 | 18.15 | 18.09 |
| 17 | 19.60 | 19.52 | 19.45 | 19.37 | 19.30 |
| 18 | $20 \cdot 86$ | 20.77 | $20 \cdot 67$ | 20.58 | 20.49 |
| 19 | 22 | 22.09 | 21.99 | 21.88 | 21.77 |
| 20 | 23.58 | 23.46 | 23.33 | 23 | 23.09 |
| 21 | 24.98 | $24 \cdot 83$ | $24 \cdot 6$ | 24.54 | 24.39 |
| 22 | $26 \cdot 35$ | 26.19 | 26.02 | 25.86 | 25.69 |
| 23 | 27.60 | 27.42 | 27.23 | 27.05 | 26.87 |
| 24 | 28.86 | 28.66 | 28.46 | 28.26 | 28.06 |
| 25 | 30.11 | 29.90 | $29 \cdot 68$ | 29.47 | 29.25 |

$36^{\circ}-40^{\circ}$
TRUE PER CENT.

| 家定 | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 31.37 | 31.14 | 30.91 | $30 \cdot 68$ | 30.45 |
| 27 | 32.65 | $32 \cdot 41$ | $32 \cdot 16$ | 31.92 | 31.67 |
| 28 | 33.94 | 33.67 | 33.41 | $33 \cdot 14$ | 32.87 |
| 29 | $35 \cdot 15$ | 34.86 | 34.58 | 34.29 | 34.01 |
| 30 | $36 \cdot 35$ | $36 \cdot 06$ | $35 \cdot 76$ | $35 \cdot 47$ | $35 \cdot 17$ |
| 31 | $37 \cdot 56$ | $37 \cdot 24$ | $36 \cdot 93$ | $36 \cdot 61$ | 36.30 |
| 32 | 38.63 | 38.31 | 37.98 | $37 \cdot 66$ | 37.34 |
| 33 | 39.69 | $39 \cdot 37$ | $39^{\circ} 04$ | $38 \cdot 7 \cdot 2$ | 38.39 |
| 34 | $40 \cdot 71$ | $40 \cdot 39$ | $40 \cdot 06$ | $39 \cdot 74$ | $39 \cdot 41$ |
| 35 | 4171 | $41 \cdot 38$ | 41.05 | $40 \cdot 72$ | $40 \cdot 39$ |
| 36 | $42 \cdot 73$ | $42 \cdot 39$ | $42 \cdot 06$ | $41 \cdot 7^{2}$ | $41 \cdot 39$ |
| 37 | $43 \cdot 71$ | $43 \cdot 38$ | $43 \cdot 06$ | $42 \cdot 73$ | 42.41 |
| 38 | 44.80 | 44.46 | 44.12 | $43 \cdot 78$ | 43.44 |
| 39 | 45.60 | $45 \cdot 28$ | 44.96 | 44.64 | $44 \cdot 32$ |
| 40 | $46 \cdot 48$ | $46 \cdot 17$ | $45 \cdot 85$ | $45 \cdot 54$ | $45 \cdot 22$ |
| 41 | $47 \cdot 37$ | 47.06 | $46 \cdot 76$ | $46 \cdot 45$ | $46 \cdot 15$ |
| 42 | $48 \cdot 28$ | 47.98 | 47.68 | $47 \cdot 3^{8}$ | 47.08 |
| 43 | $49 \cdot 18$ | $48 \cdot 88$ | $48 \cdot 59$ | $48 \cdot 29$ | 47.99 |
| 44 | 50.09 | $49 \cdot 79$ | 49.50 | $49^{\cdot 20}$ | 48.91 |
| 45 | 51.00 | 50.71 | 50.43 | 50.14 | 49.86 |
| 46 | 51.92 | $51 \cdot 65$ | 51.37 | $51 \cdot 10$ | 50.82 |
| 47 | $52 \cdot 87$ | $52 \cdot 60$ | $52 \cdot 32$ | 52.05 | 51.78 |
| 48 | 53.76 | 53.50 | 53.23 | 52.97 | $52 \cdot 70$ |
| 49 | 54.68 | 54.41 | $54 \cdot 15$ | 53.88 | $53 \cdot 62$ |
| 50 | $55 \cdot 61$ | $55 \cdot 35$ | 55.08 | 54.82 | 54.56 |

$36^{\circ}-40^{\circ}$
TRUE PER CENT.

|  | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $56 \cdot 54$ | $56 \cdot 28$ | $56 \cdot 03$ | $55 \cdot 77$ | 55.52 |
| 52 | 57.47 | $57 \cdot 22$ | $56 \cdot 98$ | $56 \cdot 73$ | $56 \cdot 48$ |
| 53 | $58 \cdot 43$ | 58.18 | 57.93 | $57 \cdot 68$ | 57.43 |
| 54 | $59 \cdot 34$ | $59 \cdot 10$ | 58.85 | $58 \cdot 61$ | $58 \cdot 37$ |
| 55 | $60 \cdot 25$ | 60.01 | 59.77 | 59.53 | 59.29 |
| 56 | $6 \mathrm{I} \cdot 18$ | 60.95 | $60 \cdot 72$ | $60 \cdot 49$ | $60 \cdot 26$ |
| 57 | $62 \cdot 14$ | 61.91 | 61.68 | 61.45 | 61.22 |
| 58 | $63 \cdot 10$ | 62.87 | $62 \cdot 64$ | 62.41 | $62 \cdot 18$ |
| 59 | 64.05 | $63 \cdot 82$ | $63 \cdot 60$ | $63 \cdot 37$ | $63 \cdot 15$ |
| 60 | 64.99 | 64.77 | $64 \cdot 54$ | $64 \cdot 32$ | $64 \cdot 10$ |
| 61 | 65.94 | $65 \cdot 72$ | 65.50 | $65 \cdot 28$ | 65.06 |
| 62 | $66 \cdot 91$ | $66 \cdot 69$ | $66 \cdot 48$ | $66 \cdot 26$ | $66 \cdot 04$ |
| 63 | 67.87 | $67 \cdot 66$ | 67.44 | $67 \cdot 23$ | 67.01 |
| 64 | 68.85 | $68 \cdot 63$ | $68 \cdot 4^{2}$ | $68 \cdot 20$ | 67.99 |
| 65 | $69 \cdot 82$ | $69 \cdot 61$ | $69 \cdot 40$ | $69 \cdot 19$ | $68 \cdot 98$ |
| 66 | $70 \cdot 80$ | $70 \cdot 59$ | $70 \cdot 37$ | $70 \cdot 16$ | 69.95 |
| 67 | $71 \cdot 79$ | 71.58 | 71.36 | 71.15 | 70.94 |
| 68 | $72 \cdot 70$ | 72.50 | $72 \cdot 29$ | 72.09 | 71.88 |
| 69 | $73 \cdot 64$ | 73.43 | $73 \cdot 23$ | $73 \cdot 02$ | $72 \cdot 82$ |
| 70 | 74.57 | 74.37 | $74 \cdot 17$ | 73.97 | $73 \cdot 77$ |
| 71 | $75 \cdot 54$ | $75 \cdot 34$ | $75 \cdot 14$ | 74.94 | 74.74 |
| 72 | $76 \cdot 49$ | $76 \cdot 29$ | 76.09 | 75.89 | $75 \cdot 69$ |
| 73 | $77 \cdot 46$ | $77 \cdot 26$ | 77.07 | $76 \cdot 87$ | $76 \cdot 68$ |
| 74 | $78 \cdot 41$ | 78.22 | 78.03 | $77 \cdot 84$ | $77 \cdot 65$ |
| 75 | 79.37 | $79 \cdot 18$ | 79.00 | $78 \cdot 81$ | $78 \cdot 62$ |

$36^{\circ}-40^{\circ}$
TRUE PER CENT.

| 象品 | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $80 \cdot 33$ | 80.14 | 79.96 | $79 \cdot 77$ | 79.58 |
| 77 | 8I.29 | 8I•II | 80.92 | $80 \cdot 74$ | 80.55 |
| 78 | $82 \cdot 26$ | 82.08 | $8 \mathrm{I} \cdot 89$ | 81.71 | 81.52 |
| 79 | 83.22 | $83 \cdot 14$ | $82 \cdot 95$ | $82 \cdot 77$ | 82.49 |
| 80 | $84 \cdot 18$ | 84.00 | $83 \cdot 82$ | $83 \cdot 64$ | 83.46 |
| 81 | $85 \cdot 15$ | 84.97 | 84.78 | 84.60 | 84.42 |
| 82 | 86.09 | 85.91 | $85 \cdot 74$ | $85 \cdot 56$ | $85 \cdot 38$ |
| 83 | 87.07 | $86 \cdot 89$ | 86.72 | $86 \cdot 54$ | $86 \cdot 36$ |
| 84 | 88.01 | $87 \cdot 84$ | 87.66 | 87.49 | 87.31 |
| 85 | $88 \cdot 95$ | $88 \cdot 78$ | $88 \cdot 61$ | $88 \cdot 44$ | 88.27 |
| 86 | 89.91 | 89.74 | 89.57 | $89 \cdot 40$ | 89.23 |
| 87 | 90.8I | $90 \cdot 65$ | $90 \cdot 48$ | $90 \cdot 32$ | 90.15 |
| 88 | $91 \cdot 74$ | 91.58 | 91.41 | 91.25 | 91.08 |
| 89 | $92 \cdot 68$ | 92.51 | $92 \cdot 35$ | $92 \cdot 18$ | 92.02 |
| 90 | 93.57 | $93 \cdot 42$ | $93 \cdot 26$ | 93.11 | 92.95 |
| 91 | 94*49 | 94.33 | 94-18 | 94.02 | 93.87 |
| 92 | 95.40 | $95 \cdot 25$ | $95 \cdot 10$ | 94.95 | $94 \cdot 80$ |
| 93 | $96 \cdot 36$ | $96 \cdot 21$ | $96 \cdot 07$ | 95.92 | $95 \cdot 78$ |
| 94 | $97 \cdot 24$ | $97 \cdot 10$ | $96 \cdot 95$ | 96.81 | $96 \cdot 67$ |
| 95 | 98.09 | $97 \cdot 95$ | $97 \cdot 80$ | $97 \cdot 66$ | 97.52 |
| 96 | $98 \cdot 90$ | $98 \cdot 78$ | $98 \cdot 65$ | $98 \cdot 53$ | 98.41 |
| 97. | $99 \cdot 80$ | $99 \cdot 67$ | 9955 | $99 \cdot{ }^{2}$ | $99 \cdot 30$ |
| 98 | $100 \cdot 70$ | 100.58 | $100 \cdot 47$ | 100.35 | $100 \cdot 23$ |
| 99 | 10161 | 10150 | $101 \cdot 38$ | $101 \cdot 27$ | 101.16 |
| 100 | 102:52 | 102.41 | $102 \cdot 30$ | 102.19 | 102.08 |

$41^{\circ}-45^{\circ}$
TRUE PER CENT.

| 気号 | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I.85 | 1.85 | 1.85 | 1.85 | I. 85 |
| 2 | $2 \cdot 61$ | $2 \cdot 61$ | $2 \cdot 61$ | $2 \cdot 61$ | $2 \cdot 61$ |
| 3 | $3 \cdot 58$ | $3 \cdot 58$ | $3 \cdot 57$ | $3 \cdot 57$ | 357 |
| 4 | 4.58 | 4.58 | 457 | 457 | 4.56 |
| 5 | $5 \cdot 57$ | $5 \cdot 57$ | $5 \cdot 56$ | $5 \cdot 56$ | 5.55 |
| 6 | $6 \cdot 67$ | $6 \cdot 66$ | $6 \cdot 66$ | $6 \cdot 65$ | $6 \cdot 64$ |
| 7 | $7 \cdot 76$ | 775 | $7 \cdot 73$ | $7 \cdot 72$ | 771 |
| 8 | $8 \cdot 82$ | $8 \cdot 80$ | $8 \cdot 79$ | $8 \cdot 77$ | $8 \cdot 75$ |
| 9 | $9 \cdot 89$ | $9 \cdot 86$ | $9 \cdot 84$ | 9.81 | $9 \cdot 79$ |
| 10 | 10.96 | 10.93 | 10.91 | 10.88 | 10.85 |
| 11 | 12.18 | $12 \cdot 15$ | I2.II | 12.08 | 12.04 |
| 12 | 13.31 | 13.27 | 13.22 | 13.18 | 13.14 |
| 13 | 14.44 | 14.39 | 14.34 | 14.29 | 14.24 |
| 14 | 15.56 | $15 \cdot 51$ | 15.45 | 15.40 | 15.34 |
| 15 | 16.77 | 16.70 | 16.62 | 16.55 | 16.48 |
| 16 | 18.01 | 17.92 | 17.84 | 17.75 | 17.67 |
| 17 | 19.20 | $19 \cdot 10$ | 19.01 | 18.91 | 18.81 |
| 18 | $20 \cdot 38$ | 20.27 | 20.17 | 20.06 | $19 \times 95$ |
| 19 | $21 \cdot 65$ | 21.53 | 21.40 | 21.28 | 21.16 |
| 20 | 22.95 | $22 \cdot 81$ | 22.66 | 22.52 | $22 \cdot 38$ |
| 21 | 24.23 | 24.07 | 23.90 | 23.74 | 23.58 |
| 22 | 25.51 | $25 \cdot 33$ | 25.15 | 24.97 | 24.79 |
| 23 | $26 \cdot 68$ | 26.49 | $26 \cdot 31$ | $26 \cdot 12$ | 25.93 |
| 24 | 27.86 | $27 \cdot 66$ | 27.45 | 27.25 | 27.05 |
| 25 | 29.03 | $28 \cdot 82$ | 28.60 | $28 \cdot 39$ | $28 \cdot 17$ |

$41^{\circ}-45^{\circ}$
TRUE PER CENT．

| 畄宫宫 | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | 44 | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $30 \cdot 22$ | 29.99 | 29.76 | 29.53 | 29.30 |
| 27 | 31.42 | $3 \mathrm{I} \cdot 18$ | 30.93 | 30.69 | $30 \cdot 44$ |
| 28 | $32 \cdot 61$ | $32 \cdot 35$ | 32.09 | $3 \mathrm{I} \cdot 83$ | 31.57 |
| 29 | $33 \cdot 74$ | 33.47 | 33.20 | $32 \cdot 93$ | 32.66 |
| 30 | $34 \cdot 89$ | 34.61 | $34 \cdot 32$ | 34.04 | 33.76 |
| 31 | 36.01 | $35 \cdot 72$ | 35.42 | $35 \cdot 13$ |  |
| 32 | 37.04 | $36 \cdot 74$ | $36 \cdot 45$ | $36 \cdot 15$ |  |
| 33 | 38.09 | 37.79 | 37.48 | $37 \cdot 18$ |  |
| 34 | $39^{110}$ | $38 \cdot 79$ | 38.49 | $38 \cdot 19$ | 37.88 |
| 35 | $40 \cdot 08$ | $39 \cdot 78$ | 39.47 | $39 \cdot 17$ |  |
| 36 | 41.09 | $40 \cdot 79$ | $40 \cdot 48$ | 40．18 | 39.88 |
| 37 | $42 \cdot 10$ | 41．79 | 41．49 | 41．18 |  |
| 38 | $43 \cdot 14$ | $42 \cdot 83$ | $42 \cdot 53$ | $42 \cdot 22$ | $41 \cdot 92$ |
| 39 | 44.02 | 43.72 | 43.42 | $43 \cdot 12$ | $42 \cdot 82$ |
| 40 | 44.94 | $44 \cdot 65$ | 44.37 | 44.08 |  |
| 41 | 45.86 | $45 \cdot 58$ | $45 \cdot 29$ | $45^{\circ} \mathrm{O}$ |  |
| 42 | $46 \cdot 80$ | $46 \cdot 52$ | $46 \cdot 23$ | 45.95 | $45 \cdot 67$ |
| 43 | 47.71 | 47.44 | $47 \cdot 16$ | $46 \cdot 89$ | $46 \cdot 61$ |
| 44 | $48 \cdot 64$ | $48 \cdot 37$ | $48 \cdot 11$ | 47.84 | 47.57 |
| 45 | $49 \cdot 60$ | $49 \cdot 33$ | 49.07 | $48 \cdot 80$ | $48 \cdot 54$ |
| 46 | 50.56 | $50 \cdot 30$ | 50.04 | $49 \cdot 78$ | $49 \cdot 52$ |
| 47 | $51 \cdot 52$ | 51．26 | 51.01 | $50 \cdot 75$ | 50.49 |
| 48 | 52.45 | $52 \cdot 19$ | 51.94 | 51.68 | 5 I 43 |
| 49 | 53.37 | $53 \cdot 12$ | 52.87 | $52 \cdot 62$ | $52 \cdot 37$ |
| 50 | 54.31 | 54.07 | 53.82 | 53.58 | 53.33 |

## $41^{\circ}-45^{\circ}$

TRUE PER CENT.

| 它家: | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $55 \cdot 28$ | $55 \cdot 04$ | 54.80 | 54.56 | 54.32 |
| 52 | $56 \cdot 24$ | $56 \cdot 00$ | $55 \cdot 77$ | $55 \cdot 53$ | $55 \cdot 29$ |
| 53 | $57 \cdot 19$ | $56 \cdot 95$ | $56 \cdot 72$ | $56 \cdot 48$ | $56 \cdot 24$ |
| 54 | $58 \cdot 13$ | 57.90 | $57 \cdot 66$ | $57 \cdot 43$ | $57 \cdot 19$ |
| 55 | 59.06 | $58 \cdot 84$ | $58 \cdot 61$ | $58 \cdot 39$ | $58 \cdot 16$ |
| 56 | 60.04 | $59 \cdot 82$ | 59.59 | $59 \cdot 37$ | $59^{15}$ |
| 57 | 6I.00 | $60 \cdot 77$ | $60 \cdot 55$ | $60 \cdot 32$ | $60 \cdot 10$ |
| 58 | 6I.96 | $6 \mathrm{I} \cdot 74$ | $6 \mathrm{I} \cdot 5^{2}$ | $6 \mathrm{I} \cdot 30$ | 6I•08 |
| 59 | 62.93 | $62 \cdot 71$ | $62 \cdot 49$ | $62 \cdot 27$ | $62 \cdot 05$ |
| 60 | $63 \cdot 88$ | $63 \cdot 66$ | 63.45 | $63 \cdot 23$ | $63 \cdot 01$ |
| 61 | $64 \cdot 85$ | $64 \cdot 64$ | 64.42 | 64.21 | 64.00 |
| 62 | $65 \cdot 83$ | $65 \cdot 62$ | 65.4 I | $65 \cdot 20$ | 64.99 |
| 63 | 66.80 | $66 \cdot 60$ | $66 \cdot 39$ | $66 \cdot 19$ | 65.98 |
| 64 | 6778 | 67.58 | $67 \cdot 37$ | $67 \cdot 17$ | $66 \cdot 96$ |
| 65 | $68 \cdot 77$ | 68.56 | $68 \cdot 36$ | $68 \cdot 15$ | 67.94 |
| 66 | $69 \cdot 74$ | 69.53 | $69 \cdot 33$ | $69 \cdot 12$ | 68.91 |
| 67 | 70.73 | 70.52 | $70 \cdot 32$ | 70.11 | 69.90 |
| 68 | 71.68 | 71.48 | 71.27 | 71.07 | 70.87 |
| 69 | $72 \cdot 62$ | $72 \cdot 43$ | $72 \cdot 23$ | 72.04 | 71.84 |
| 70 | 73.58 | $73 \cdot 38$ | $73 \cdot 19$ | 72.99 | $72 \cdot 80$ |
| 71 | 74.54 | 74.35 | 74.15 | 73.96 | 73.76 |
| 72 | $75 \cdot 50$ | $75 \cdot 31$ | $75^{\text {. } 11}$ | 74.92 | $74 \cdot 73$ |
| 73 | $76 \cdot 49$ | $76 \cdot 30$ | $76 \cdot 12$ | $75 \cdot 93$ | $75 \cdot 74$ |
| 74 | 77.46 | $77 \cdot 28$ | 77.09 | 76.91 | $76 \cdot 72$ |
| 75 | $78 \cdot 43$ | $78 \cdot 24$ | $78 \cdot 06$ | $77 \cdot 87$ | $77 \cdot 68$ |

$41^{\circ}-45^{\circ}$
TRUE PER CENT.

|  | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 79.40 | $79^{\circ} \mathrm{I}$ I | 79.03 | $78 \cdot 84$ | $78 \cdot 66$ |
| 77 | $80 \cdot 37$ | 80.18 | 80.00 | $79 \cdot 81$ | $79 \cdot 63$ |
| 78 | 81.34 | $8 \mathrm{I} \cdot 16$ | 80.98 | 80.80 | $80 \cdot 62$ |
| 79 | $82 \cdot 31$ | $8 z \cdot 13$ | 81.94 | $8 \mathrm{I} \cdot 76$ | 81.58 |
| 80 | $83 \cdot 28$ | $83 \cdot 10$ | $82 \cdot 92$ | $82 \cdot 74$ | 82.56 |
| 81 | $84 \cdot 24$ | 84.07 | $83 \cdot 89$ | 83.72 | 83.54 |
| 82 | $85 \cdot 21$ | 85.03 | 84.86 | $84 \cdot 68$ | 84.51 |
| 83 | 86.19 | $86 \cdot 01$ | $85 \cdot 84$ | $85 \cdot 66$ | 85.49 |
| 84 | $87 \cdot 14$ | $86 \cdot 97$ | $86 \cdot 80$ | $86 \cdot 63$ | $86 \cdot 46$ |
| 85 | $88 \cdot 10$ | 87.93 | $87 \cdot 77$ | $87 \cdot 60$ | 87.43 |
| 86 | 89.06 | 88.89 | 88.73 | $88 \cdot 56$ | $88 \cdot 39$ |
| 87 | 89.99 | 89.83 | $89 \cdot 66$ | 89.50 | $89 \cdot 34$ |
| 88 | 90.92 | $90 \cdot 76$ | $90 \cdot 60$ | $90 \cdot 44$ | 90.28 |
| 89 | 91.87 | 91.71 | 91.56 | 91.40 | 91.25 |
| 90 | $92 \cdot 80$ | $92 \cdot 65$ | 92.49 | $92 \cdot 34$ | 92.19 |
| 91 | 93.72 | 93.57 | 93.42 | $93 \cdot 27$ | 93.12 |
| 92 | 94.65 | 94.52 | 94.37 | 94.23 | 94.09 |
| 93 | $95 \cdot 64$ | 95.50 | $95 \cdot 36$ | $95 \cdot 22$ | 95.08 |
| 94 | $96 \cdot 53$ | $96 \cdot 39$ | $96 \cdot 25$ | $96 \cdot 11$ | 95.97 |
| 95 | $97 \cdot 3^{8}$ | $97 \cdot 25$ | 97-11 | 96•98 | 84 |
| 96 | $98 \cdot 28$ | 98-16 | 98.03 | 97-91 | $97 \cdot 78$ |
| 97 | 99-18 | $99 \cdot 07$ | 98.95 | $98 \cdot 84$ | $98 \cdot 72$ |
| 98 | 100.12 | 100.00 | 99.89 | 99.77 | 99.66 |
| 99 | 101.05 | $100 \cdot 94$ | $100 \cdot 83$ | $100 \cdot 72$ | $100 \cdot 61$ |
| 100 | 101.98 | 101.87 | 101.77 | 101.66 | 101.56 |

## $46^{\circ}-50^{\circ}$

true per cent．

| 密品品 | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1．80 | 1.7 | 1．69 | 1．63 | 15 |
| 2 | $2 \cdot 58$ | $2 \cdot 55$ | 2.53 | $2 \cdot 50$ | $2 \cdot 47$ |
| 3 | 3.55 | $3 \cdot 52$ | $3 \cdot 50$ | $3 \cdot 47$ | 3.45 |
| 4 | 454 | 4.51 | 4.49 | 4.46 | 4.44 |
| 5 | $5 \cdot 53$ | $5 \cdot 51$ | $5 \cdot 48$ | $5 \cdot 46$ | $5 \cdot 44$ |
| 6 | $6 \cdot 61$ | $6 \cdot 58$ | $6 \cdot 55$ | $6 \cdot 52$ | $6 \cdot 49$ |
| 7 | $7 \cdot 68$ | 7.64 | $7 \cdot 61$ | $7 \cdot 57$ | 7.54 |
| 8 | $8 \cdot 72$ | $8 \cdot 68$ | 8.65 | 8.61 |  |
| 9 | $9 \cdot 75$ | 9.72 | 9.68 | 9.65 | 9.61 |
| 10 | 10.81 | 10.77 | 10.72 | 10.68 |  |
| 11 | 11.99 | 11.93 | 11．88 | 11.82 |  |
| 12 | 13.08 | 13.01 | 12.95 | 12.88 |  |
| 13 | 14.17 | $14 \cdot 10$ | 14.02 | 13.95 | 13.88 |
| 14 | 15.26 | 15.18 | 15.11 | 15.03 | 14.95 |
| 15 | 16.40 | 16.31 | 16.23 | $16 \cdot 14$ |  |
| 16 | 17.57 | 17 |  | 17.27 |  |
| 17 | 18.70 | 18.59 | 18.49 | 18.38 | 18.27 |
| 18 | 19.83 | 19.71 | 19.60 | 19.48 | 19.36 |
| 19 | $2 \mathrm{I} \cdot 02$ | 20.89 | 20.75 | 20.62 | 20.48 |
| 20 | 22.23 | 22.07 | 21.92 | 21.7 |  |
| 21 | 23.42 | 23.25 | 23.09 | 22.92 |  |
| 22 | 24.61 | 24.42 | $24 \cdot 24$ | 24.05 | 23.87 |
| 23 | 25.73 | 25.53 | 25.34 | $25 \cdot 14$ | 24.94 |
| 24 | 26.85 | 26.64 | 26.4 | $26 \cdot 23$ | 26.03 |
| 25 | 27.96 | 2775 | 27.53 | $27 \cdot 32$ | $27 \cdot 11$ |

$46^{\circ}-50^{\circ}$
TRUE PER CENT.

| $\mid$ | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 29.17 | 28.84 | $28 \cdot 61$ | $28 \cdot 38$ | $28 \cdot 15$ |
| 27 | $30 \cdot 20$ | 29.96 | 29.71 | 29.47 | 29.23 |
| 28 | $31 \cdot 32$ | 31.07 | $30 \cdot 83$ | $30 \cdot 58$ | 30.33 |
| 29 | $32 \cdot 41$ | $32 \cdot 15$ | 31.90 | 31.64 | 31.39 |
| 30 | 33.49 | 33.22 | $32 \cdot 96$ | 32.69 | $32 \cdot 42$ |
| 31 | 34.55 | $34 \cdot 26$ | 33.97 | 33.68 | 33.49 |
| 32 | 35.58 | $35 \cdot 30$ | $35^{\circ} \mathrm{O}$ | 34.75 | 34.48 |
| 33 | $36 \cdot 60$ | $36 \cdot 32$ | 36.05 | 35.77 | 35.49 |
| 34 | $37 \cdot 60$ | $37 \cdot 33$ | 37.05 | $36 \cdot 78$ | $36 \cdot 50$ |
| 35 | 38.59 | $38 \cdot 31$ | $38 \cdot 04$ | 37.76 | $37 \cdot 49$ |
| 36 | $39 \cdot 60$ | $39^{\circ} 3^{2}$ | 39.05 | $38 \cdot 77$ | $38 \cdot 49$ |
| 37 | 40.59 | $40 \cdot 32$ | $40 \cdot 04$ | $39 \cdot 77$ | 39.49 |
| 38 | $41 \cdot 64$ | 41.36 | 41.07 | $40 \cdot 79$ | 40.51 |
| 39 | $42 \cdot 55$ | $42 \cdot 28$ | $42 \cdot 02$ | 4I'75 | 41.48 |
| 40 | 43.53 | $43 \cdot 26$ | $42 \cdot 98$ | $42 \cdot 71$ | 42.44 |
| 41 | 44.45 | $44^{19} 9$ | 43.92 | $43 \cdot 66$ | $43 \cdot 39$ |
| 42 | 45.41 | 45.15 | 44.88 | $44 \cdot 62$ | $44 \cdot 36$ |
| 43 | $46 \cdot 35$ | 46.09 | 45.84 | $45 \cdot 58$ | $45 \cdot 32$ |
| 44 | $47 \cdot 32$ | 47.07 | $46 \cdot 82$ | $46 \cdot 57$ | $46 \cdot 32$ |
| 45 | $48 \cdot 29$ | $48 \cdot 04$ | $47 \cdot 80$ | 47.55 | $47 \cdot 30$ |
| 46 | $49^{\cdot 27}$ | $49 \cdot 02$ | 48:78 | $48 \cdot 53$ | $48 \cdot 28$ |
| 47 | 50.24 | $50 \cdot 00$ | $49 \cdot 75$ | 49.5 I | $49 \cdot 26$ |
| 48 | 51.19 | 50.95 | $50 \cdot 70$ | 50.46 | 50.22 |
| 49 | $52 \cdot 13$ | 51.89 | 51.66 | 51.42 | $5 \mathrm{I} \cdot 18$ |
| 50 | $53 \cdot 10$ | $52 \cdot 87$ | 52.63 | 52.40 | $52 \cdot 17$ |

## $46^{\circ}-50^{\circ}$

TRUE PER CENT.

| 密 | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 54.09 | 53.86 | $53 \cdot 63$ | 53.40 | $53 \cdot 17$ |
| 52 | 55.06 | 54.83 | 54.59 | 54.36 | 54.13 |
| 53 | 56.01 | $55 \cdot 78$ | $55 \cdot 56$ | $55 \cdot 33$ | $55 \cdot 10$ |
| 54 | $56 \cdot 97$ | $56 \cdot 75$ | 56.54 | $56 \cdot 32$ | $56 \cdot 10$ |
| 55 | 57.94 | $57 \cdot 72$ | $57 \cdot 51$ | $57 \cdot 29$ | 57.07 |
| 56 | $58 \cdot 93$ | 58.71 | $58 \cdot 49$ | $58 \cdot 27$ | 58.05 |
| 57 | 59.89 | 59.68 | 59.46 | $59 \cdot 25$ | 59.04 |
| 58 | $60 \cdot 87$ | $60 \cdot 66$ | $60 \cdot 44$ | 60.23 | 60.02 |
| 59 | $6 \mathrm{I} \cdot 84$ | $6 \mathrm{I} \cdot 63$ | $6 \mathrm{I} \cdot 43$ | $61 \cdot 22$ | $61 \cdot 01$ |
| 60 | $62 \cdot 80$ | $62 \cdot 60$ | $62 \cdot 39$ | $62 \cdot 19$ | 61.98 |
| 61 | $63 \cdot 79$ | 63.59 | $63 \cdot 38$ | $63 \cdot 18$ | 62.97 |
| 62 | 64.79 | 64.58 | $64 \cdot 38$ | $64 \cdot 17$ | 63.97 |
| 63 | $65 \cdot 78$ | $65 \cdot 57$ | $65 \cdot 37$ | $65 \cdot 16$ | 64.96 |
| 64 | $66 \cdot 76$ | $66 \cdot 56$ | $66 \cdot 35$ | $66 \cdot 15$ | 65.95 |
| 65 | $67 \cdot 74$ | $67 \cdot 54$ | $67 \cdot 34$ | $67 \cdot 14$ | 66.94 |
| 66 | $68 \cdot 71$ | $68 \cdot 52$ | $68 \cdot 32$ | $68 \cdot 13$ | 67.93 |
| 67 | $69 \cdot 70$ | 69.50 | 69.30 | $69 \cdot 10$ | $68 \cdot 90$ |
| 68 | $70 \cdot 67$ | 70.47 | 70.28 | 70.08 | 69.88 |
| 69 | 71.65 | 71.45 | $71 \cdot 26$ | 71.06 | $70 \cdot 87$ |
| 70 | $72 \cdot 61$ | $72 \cdot 42$ | $72 \cdot 22$ | $72 \cdot 03$ | 71.84 |
| 71 | 73.57 | $73 \cdot 38$ | 73-18 | 72.99 | 72.80 |
| 72 | 74.54 | 74.36 | $74 \cdot 17$ | 73.99 | 73.80 |
| 73 | $75 \cdot 55$ | $75 \cdot 36$ | $75 \cdot 18$ | 74.99 | 74.8 a |
| 74 | 76.53 | $76 \cdot 35$ | $76 \cdot 16$ | $75 \cdot 98$ | $75 \cdot 79$ |
| 75 | $77 \cdot 50$ | $77 \cdot 3^{2}$ | $77 \cdot 13$ | $76 \cdot 95$ | $76 \cdot 77$ |

$46^{\circ}-50^{\circ}$
true per cent.

|  | $46^{\circ}$ | 47 | 48 | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 78 | 78.30 | 78.11 | 77.93 |  |
| 77 | 79.45 | 79.27 | $79 \cdot 10$ | 78.92 |  |
| 78 | $80 \cdot 44$ | 80.26 | 80.09 | 79.91 | 73 |
| 79 | $8 \mathrm{I} \cdot 4 \mathrm{I}$ | 81.23 | 81.06 | 80.88 |  |
| 80 | $82 \cdot 38$ | $82 \cdot 2 \mathrm{I}$ | 82.03 | 8 I |  |
| 81 | 83.37 | 8 | 83.02 | 82.84 |  |
| 82 | 84.34 | $84 \cdot 17$ | 83.99 |  |  |
| 83 | $85 \cdot 32$ | $85 \cdot 15$ | 84.98 | 84.81 |  |
| 84 | $86 \cdot 29$ | $86 \cdot 13$ | 85.96 | 85 |  |
| 85 | $87 \cdot 2$ | 87-10 | 86.93 |  |  |
| 86 | 88.23 |  |  |  |  |
| 87 | 89.34 | 89.18 | 89.02 |  |  |
| 88 | 90.12 | $89 \cdot 96$ | 89.81 | 89.65 | 89.49 |
| 89 | $91 \cdot 10$ | 90.94 | $90 \cdot 79$ |  |  |
| 90 | 92.04 | 91 | 91•74 | 91.59 | 91.44 |
| 91 | 92.97 |  | 92.68 | 92.54 |  |
| 92 | 93.95 | 93.81 | 93.66 | 93.52 | 8 |
| 93 | 94.94 | $94 \cdot 80$ | 94.66 | $4 \cdot 52$ | $4 \cdot 38$ |
| 94 | $95 \cdot 83$ |  | 95.55 | $95^{\circ} 41$ | 27 |
| 95 | $96 \cdot 72$ | 96.59 | 96 | , |  |
| 9 | 97.66 |  |  |  |  |
| 97 | 98.60 | 98.48 | 98.37 | 98.25 | $8 \cdot 13$ |
| 98 | 99.55 | 99.44 | 99.33 | 99.21 | 99-10 |
| 99 | $100 \cdot 50$ | $100 \cdot 40$ | $100 \cdot 29$ | $100 \cdot 18$ | $100 \cdot 07$ |
| 100 | 101.46 | 101.35 | 101.26 | 10 | 101.04 |

$$
51^{\circ}-55^{\circ}
$$

## TRUE PER CENT.

|  | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $1 \times 52$ | 1.46 | 1.40 | 134 | I 28 |
| 2 | 2.43 | $2 \cdot 39$ | $2 \cdot 34$ | $2 \cdot 30$ | $2 \cdot 26$ |
| 3 | 3.41 | $3 \cdot 37$ | $3 \cdot 33$ | $3 \cdot 29$ | $3 \cdot 25$ |
| 4 | 4.40 | $4 \cdot 36$ | $4 \cdot 32$ | $4 \cdot 28$ | 4.24 |
| 5 | $5 \cdot 40$ | $5 \cdot 36$ | $5 \cdot 33$ | $5 \cdot 29$ | $5 \cdot 25$ |
| 6 | 6.45 | 6.41 | $6 \cdot 37$ | $6 \cdot 33$ | $6 \cdot 29$ |
| 7 | $7 \cdot 50$ | $7 \cdot 45$ | $7 \cdot 41$ | $7 \cdot 36$ | $7 \cdot 32$ |
| 8 | $8 \cdot 53$ | $8 \cdot 48$ | $8 \cdot 42$ | $8 \cdot 37$ | $8 \cdot 32$ |
| 9 | $9 \cdot 56$ | $9 \cdot 50$ | 9.45 | $9 \cdot 39$ | $9 \cdot 34$ |
| 10 | 10.58 | 10.52 | 10.46 | 10.40 | 10.34 |
| 11 | $11 \times 70$ | 11.63 | I 1.55 | 11.48 | 11.41 |
| 12 | 12.75 | 12.68 | 12.60 | 12.53 | 12.46 |
| 13 | 13.80 | 13.72 | 13.64 | 13.56 | 13.48 |
| 14 | 14.86 | 14.77 | 14.69 | 14.60 | 1451 |
| 15 | 15.96 | 15.86 | 15.77 | 15.67 | 15.57 |
| 16 | 17.06 | 16.95 | 16.84 | $16 \cdot 73$ | 16.62 |
| 17 | $18 \cdot 15$ | 18.03 | 17.91 | 17.79 | $17 \cdot 67$ |
| 18 | 19.23 | $19 \cdot 10$ | 18.96 | 18.83 | 18.70 |
| 19 | 20.34 | $20 \cdot 20$ | 20.05 | 19.91 | 19.77 |
| 20 | $21 \cdot 45$ | 21.29 | $21 \cdot 14$ | $20 \cdot 98$ | $20 \cdot 82$ |
| 21 | 22.58 | 22.41 | 22.23 | 22.06 | 21.88 |
| 22 | $23 \cdot 69$ | 23.50 | 23.32 | $23 \cdot 13$ | 22.95 |
| 23 | 24.75 | 24.56 | 24.36 | 24.17 | 23.98 |
| 24 | $25 \cdot 83$ | $25 \cdot 63$ | $25 \cdot 42$ | $25 \cdot 22$ | 25.02 |
| 25 | 26.90 | $26 \cdot 68$ | $26 \cdot 47$ | $26 \cdot 25$ | $26 \cdot 04$ |

$51^{\circ}-55^{\circ}$
TRUE PER CENT.

| 咨品 | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 |  | 27.71 |  |  |  |
| 27 | 29 |  | 28.55 | 28.33 |  |
| 28 | 30 | 29.86 | 29.63 | 29.39 | 6 |
| 29 |  | 30.89 | $30 \cdot 64$ | $30 \cdot 39$ |  |
| 30. | $32 \cdot 1$ | 31.92 | 31.6 | 31.41 |  |
| 31 | 33.23 | 32.97 | 32.72 | $32 \cdot 46$ |  |
| 32 | 34.22 | 33.96 | $33 \cdot 69$ | 33.43 | 1 |
| 33 | $35^{\circ}$ | 34.97 | 34.72 | 34.4 | 34.20 |
| 34 | $36 \cdot 24$ | 35.98 | 35.71 | 35 |  |
| 35 | $37 \cdot 23$ | 36.97 | 36.71 | $36 \cdot 45$ |  |
| 36 | 38.23 | 37.98 | 37.72 |  |  |
| 37 | $39 \cdot 23$ | 38.97 |  |  |  |
| 38 | $40 \cdot 25$ | $40 \cdot 0$ | $39 \cdot 74$ | 39.49 |  |
| 39 | 41.22 | $40 \cdot 96$ | $40 \cdot 70$ | $40 \cdot 4$ |  |
| 40 | 42.19 | 41.94 | 41 |  |  |
| 41 | $43 \cdot 14$ | $42 \cdot 89$ | $42 \cdot 64$ | $42 \cdot 39$ |  |
| 42 | $44 \cdot 12$ | $43 \cdot 87$ | $43 \cdot 63$ | $43 \cdot 3$ | $43 \cdot 14$ |
| 43 | 45.08 | 44.84 | $44^{6} 6$ | 44.36 | $44 \cdot 12$ |
| 44 | $46 \cdot 08$ | $45 \cdot 84$ | 45.61 | 45.37 | $45 \cdot 13$ |
| 45 |  | 46.83 | $46 \cdot 5$ | $46 \cdot 36$ |  |
| 46 | 48.04 | $47 \cdot 81$ | 47.57 | 47.34 |  |
| 47 | 49.03 | $48 \cdot 79$ | $48 \cdot 56$ | $48 \cdot 32$ | 48 |
| 48 | 49.99 | 49.76 | $49 \cdot 52$ | 49.29 | 49.06 |
| 49 | 50.96 | 50.74 | 50.51 | $50 \cdot 29$ | 50.07 |
| 50 | 51.95 | 51.73 | 5150 | 51.28 | 51.06 |

## $51^{\circ}-55^{\circ}$

TRUE PER CENT.

| \% | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 52.95 | $52 \cdot 73$ | 52.50 | 52.28 | 52.06 |
| 52 | 53.91 | 53.69 | 53.47 | $53 \cdot 25$ | 53.03 |
| 53 | 54.89 | 54.67 | 54.46 | 54.24 | 54.03 |
| 54 | $55 \cdot 89$ | 55.67 | $55 \cdot 46$ | $55 \cdot 24$ | $55 \cdot 03$ |
| 55 | 56.86 | $56 \cdot 65$ | $56 \cdot 44$ | 56.23 | 56.02 |
| 56 | $57 \cdot 84$ | $57 \cdot 63$ | 57.43 | $57 \cdot 22$ | 57.01 |
| 57 | $58 \cdot 83$ | $58 \cdot 62$ | 58.42 | $58 \cdot 21$ | $58 \cdot 00$ |
| 58 | 59.81 | 59.61 | $59 \cdot 40$ | $59 \cdot 20$ | $58 \cdot 99$ |
| 59 | $60 \cdot 81$ | $60 \cdot 60$ | $60 \cdot 40$ | $60 \cdot 19$ | 59.99 |
| 60 | $61 \cdot 78$ | 61.58 | 61.37 | $61 \cdot 17$ | 60:97 |
| 61 | $62 \cdot 77$ | $62 \cdot 57$ | $62 \cdot 38$ | $62 \cdot 18$ | 61.98 |
| 62 | 63.77 | 63.57 | $63 \cdot 37$ | $63 \cdot 17$ | 62.97 |
| 63 | 64.76 | 64.56 | 64.36 | $64 \cdot 16$ | 63.96 |
| 64 | $65 \cdot 75$ | 65.55 | $65 \cdot 36$ | $65 \cdot 16$ | 64.96 |
| 65 | $66 \cdot 74$ | 66.54 | $66 \cdot 35$ | $66 \cdot 15$ | 65.95 |
| 66 | 67.73 | 67.53 | $67 \cdot 33$ | $67 \cdot 13$ | $66 \cdot 93$ |
| 67 | 68.71 | 68.52 | $68 \cdot 32$ | $68 \cdot 13$ | 67.94 |
| 68 | 69.69 | 69.50 | 69.31 | $69 \cdot 12$ | $68 \cdot 93$ |
| 69 | $70 \cdot 68$ | $70 \cdot 49$ | $70 \cdot 31$ | $70 \cdot 12$ | 69.93 |
| 70 | $7 \mathrm{I} \cdot 65$ | $71 \cdot 46$ | 71.27 | 71.08 | 70.89 |
| 71 | $72 \cdot 62$ | 72.44 | $72 \cdot 26$ | 72.08 | 71.90 |
| 72 | $73 \cdot 62$ | 73.44 | $73 \cdot 25$ | 73.07 | 72.89 |
| 73 | $74 \cdot 62$ | 74.44 | $74 \cdot 25$ | 74.07 | 73.89 |
| 74 | $75 \cdot 61$ | 75.43 | $75 \cdot 24$ | 75.06 | 74.88 |
| 75 | $76 \cdot 59$ | $76 \cdot 41$ | $76 \cdot 23$ | $76 \cdot 05$ | $75 \cdot 87$ |

$51^{\circ}-55^{\circ}$
TRUE PER CENT.

| 年: | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 77.57 | $77 \cdot 39$ | $77 \cdot 22$ | $77 \cdot 04$ | 76.86 |
| 77 | $78 \cdot 56$ | $78 \cdot 39$ | $78 \cdot 21$ | 78.04 | 77.86 |
| 78 | 79.56 | $79 \cdot 38$ | $79 \cdot 2 \mathrm{I}$ | 79.03 | 78.86 |
| 79 | 80.54 | $80 \cdot 36$ | $80 \cdot 19$ | 80.01 | 79.84 |
| 80 | 81.51 | 8I•34 | 8I'18 | 81.01 | 80.84 |
| 81 | 82.50 | $82 \cdot 33$ | $82 \cdot 17$ | $82 \cdot 00$ | $8 \mathrm{I} \cdot 83$ |
| 82 | 83.48 | $83 \cdot 32$ | $83 \cdot 15$ | 82.99 | 82.82 |
| 83 | 84.48 | 84.3 I | $84 \cdot 15$ | 83.98 | 83.82 |
| 84 |  | $85 \cdot 30$ | $85 \cdot 14$ | 84.97 | 84.81 |
| 85 | $86 \cdot 44$ | 86.28 | $86 \cdot 11$ | 85.95 | $85 \cdot 79$ |
| 8 |  | 87 | $87 \cdot 12$ | $86 \cdot 96$ | 86.80 |
| 87 | 88.39 | $88 \cdot 23$ | 88.08 | $87 \cdot 92$ | $87 \cdot 76$ |
| 88 | 89.34 | 89•19 | 89.05 | $88 \cdot 90$ | 88.75 |
| 89 | +90.33 | +90.19 | 90.04 | 89.90 | 89.75 |
| 90 | 91.29 | 9I•14 | 91.00 | 90.85 | $90 \cdot 70$ |
| 9 | $92 \cdot 25$ | 92-11 | 91.97 | 91.83 | 91.69 |
| 92 | $93 \cdot 24$ | 93.1I | 92.97 | $92 \cdot 84$ | 92.70 |
| 9 | 94.24 | $94 \cdot 10$ | 93.97 | 93.83 | 93.69 |
| 94 | 95.14 | $95^{\circ} \mathrm{O}$ | 94.89 | 94.76 | 94.63 |
| 95 | $96 \cdot 10$ | $95 \cdot 97$ | $95 \cdot 85$ | 95.72 | $95 \cdot 60$ |
| 9 | 97.05 | 96•93 | $96 \cdot 82$ | $96 \cdot 70$ | 96.58 |
| 97 | $98 \cdot 02$ | 97.90 | 97.79 | 97.67 | 97.56 |
| 98 | 98.99 | 98.88 | $98 \cdot 76$ | 98.65 | 98.54 |
| 99 | -99.96 | 99.85 | $99 \times 75$ | 99.64 | 99.53 |
| 100 | 100.94 | 100.83 | $100 \cdot 73$ | $100 \cdot 62$ | $100 \cdot 52$ |

$56^{\circ}-60^{\circ}$
TRUE PER CENT.

| 気 | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I. 22 | $1 \cdot 17$ | 1-11 | 1.06 | 1.00 |
| 2 | $2 \cdot 21$ | $2 \cdot 16$ | $2 \cdot 10$ | 2.05 | 2.00 |
| 3 | $3 \cdot 20$ | $3 \cdot 15$ | $3 \cdot 10$ | 3.05 | $3 \cdot 00$ |
| 4 | $4 \cdot 19$ | $4 \cdot 14$ | $4 \cdot 10$ | 4.05 | 4.00 |
| 5 | $5 \cdot 20$ | $5 \cdot 15$ | $5 \cdot 10$ | $5 \cdot 05$ | $5 \cdot 00$ |
| 6 | $6 \cdot 23$ | $6 \cdot 17$ | $6 \cdot 12$ | $6 \cdot 06$ | $6 \cdot 00$ |
| 7 | $7 \cdot 26$ | 7-19 | 7•13 | $7 \cdot 06$ | 7.00 |
| 8 | $8 \cdot 26$ | 8.19 | 8.13 | $8 \cdot 06$ | 8.00 |
| 9 | $9 \cdot 27$ | $9 \cdot 20$ | $9 \cdot 14$ | $9 \cdot 07$ | $9 \cdot 00$ |
| 10 | 10.27 | $10 \cdot 20$ | $10 \cdot 14$ | 10.07 | 10.00 |
| 11 | I 1.33 | II 125 | I I 16 | 11.08 | 11.00 |
| 12 | $12 \cdot 37$ | $12 \cdot 28$ | $12 \cdot 18$ | 12.09 | 12.00 |
| 13 | 13.38 | 13.29 | $13 \cdot 19$ | $13 \cdot 10$ | 13.00 |
| 14 | 14.41 | 14.31 | 14.20 | 14.10 | 14.00 |
| 15 | 15.46 | $15 \cdot 34$ | $15 \cdot 23$ | $15 \cdot 11$ | 15.00 |
| 16 | 16.50 | $16 \cdot 37$ | 16.25 | $16 \cdot 12$ | 16.00 |
| 17 | 17.54 | $17 \cdot 40$ | $17 \cdot 27$ | $17 \cdot 13$ | 17.00 |
| 18 | 18.56 | $18 \cdot 42$ | $18 \cdot 28$ | $18 \cdot 14$ | 18.00 |
| 19 | 19.62 | 19.46 | 19.31 | $19 \cdot 15$ | 19.00 |
| 20 | 20.66 | $20 \cdot 49$ | $20 \cdot 33$ | $20 \cdot 16$ | 20.00 |
| 21 | 21.70 | 21.53 | 21.35 | 21.18 | 21.00 |
| 22 | $22 \cdot 76$ | 22.57 | 22.38 | 22.19 | 22.00 |
| 23 | 23.78 | 23.59 | 23.39 | 23.20 | 23.00 |
| 24 | $24 \cdot 82$ | 24.61 | 24.41 | $24 \cdot 20$ | 24.00 |
| 25 | $25 \cdot 83$ | $25 \cdot 62$ | 25.42 | $25 \cdot 21$ | 25.00 |

$56^{\circ}-60^{\circ}$
TRUE PER CENT.

| 苞宫: | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $26 \cdot 85$ | $26 \cdot 64$ | $26 \cdot 42$ | $26 \cdot 21$ | $26 \cdot 00$ |
| 27 | 27.88 | $27 \cdot 66$ | $27 \cdot 44$ | $27 \cdot 22$ | $27 \cdot 00$ |
| 28 | 28.93 | $28 \cdot 70$ | $28 \cdot 46$ | $28 \cdot 23$ | -00 |
| 29 | 29.91 | $29 \cdot 68$ | 29.46 | $29 \cdot 23$ | $29^{\circ} 00$ |
| 30 | 30.93 | 30.70 | $30 \cdot 46$ | 30.23 | 30.00 |
| 31 | 31.96 | $3 \mathrm{I} \cdot 72$ | 31.48 | 31.24 | 31.00 |
| 32 | $32 \cdot 94$ | $32 \cdot 70$ | 32.47 | $32 \cdot 23$ | $32 \cdot 00$ |
| 33 | 33.96 | $33 \cdot 72$ | 33.48 | $33 \cdot 24$ | $33 \cdot 00$ |
| 34 | 34.95 | 34.71 | 34.48 | $34 \cdot 24$ | 34.00 |
| 35 | 35.95 | $35 \cdot 7$ I | $35 \cdot 48$ | $35 \cdot 24$ | 35.00 |
| 36 | $36 \cdot 97$ | $36 \cdot 73$ | $36 \cdot 48$ | $36 \cdot 24$ |  |
| 37 | 37.95 | $37 \cdot 71$ | 37.48 | $37 \cdot 24$ |  |
| 38 | $38 \cdot 98$ | $38 \cdot 74$ | $38 \cdot 49$ | $38 \cdot 25$ |  |
| 39 | $39^{\circ} 94$ | 39.71 | 39.47 | $39 \cdot 24$ | 39.00 |
| 40 | $40 \cdot 94$ | $40 \cdot 71$ | $40 \cdot 47$ | $40 \cdot 24$ |  |
| 41 | 41.91 | 41.68 | 41.46 | $41 \cdot 23$ | 41.00 |
| 42 | 42.91 | $42 \cdot 68$ | $42 \cdot 46$ | $42 \cdot 23$ | $42 \cdot 00$ |
| 43 | 43.90 | $43 \cdot 67$ | 43.45 | $43 \cdot 22$ | 43.00 |
| 44 | 44.90 | $44 \cdot 68$ | 44.45 | $44 \cdot 23$ | 44.00 |
| 45 | 45.90 | $45 \cdot 67$ | 45.45 | $45 \cdot 22$ | $45 \cdot 00$ |
| 46 | $46 \cdot 88$ | $46 \cdot 66$ | $46 \cdot 44$ | $46 \cdot 22$ | $46 \cdot 00$ |
| 47 | 47.87 | 47.65 | $47 \cdot 44$ | $47 \cdot 22$ |  |
| 48 | $48 \cdot 85$ | $48 \cdot 64$ | $48 \cdot 42$ | $48 \cdot 21$ | 48.00 |
| 49 | 49.86 | $49 \cdot 64$ | $49 \cdot 43$ | $49 \cdot 21$ | 49.00 |
| 50 | $50 \cdot 85$ | 50.64 | $50 \cdot 42$ | 50.21 | 50.00 |

$$
56^{\circ}-60^{\circ}
$$

## TRUE PER CENT.

|  | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $51 \cdot 85$ | $51 \cdot 64$ | 51.42 | 51.2I | 51.00 |
| 52 | 52.82 | 52.62 | 52.41 | $52 \cdot 21$ | 52.00 |
| 53 | 53.82 | $5 \dot{3} \cdot 62$ | 53.41 | 53.21 | 53.00 |
| 54 | 54.82 | 54.62 | 54.41 | 54.2 I | 54.00 |
| 55 | $55 \cdot 82$ | $55 \cdot 61$ | 55.41 | 55:20 | 55.00 |
| 56 | $56 \cdot 81$ | $56 \cdot 61$ | $56 \cdot 40$ | $56 \cdot 20$ | 56.00 |
| 57 | $57 \cdot 80$ | 57.60 | 57.40 | 57.20 | 57.00 |
| 58 | $58 \cdot 79$ | 58.59 | $58 \cdot 40$ | 58.20 | 58.00 |
| 59 | $59 \cdot 79$ | 59.59 | 59:40 | $59 \cdot 20$ | 59.00 |
| 60 | $60 \cdot 78$ | 60.58 | $60 \cdot 39$ | 60.19 | 60.00 |
| 61 | $6 \mathrm{I} \cdot 78$ | 6I.59 | 61.39 | 61.20 | 61.00 |
| 62 | $62 \cdot 78$ | $62 \cdot 58$ | $62 \cdot 39$ | 62.19 | $62 \cdot 00$ |
| 63 | $63 \cdot 77$ | 63.58 | $63 \cdot 38$ | $63 \cdot 19$ | 63.00 |
| 64 | 64.77 | 64.58 | 64.38 | 64.19 | 64.00 |
| 65 | $65 \cdot 76$ | 65.57 | $65 \cdot 38$ | $65 \cdot 19$ | $65 \cdot 00$ |
| 66 | $66 \cdot 74$ | $66 \cdot 56$ | $66 \cdot 37$ | 66.19 | $66 \cdot 00$ |
| 67 | 67.75 | $67 \cdot 56$ | $67 \cdot 38$ | 67•19 | 67.00 |
| 68 | $68 \cdot 74$ | $68 \cdot 56$ | $68 \cdot 39$ | 68-19 | 68.00 |
| 69 | $69 \cdot 74$ | 69.56 | $69 \cdot 39$ | 69•19 | 69.00 |
| 70 | $70 \cdot 71$ | 70.53 | $70 \cdot 36$ | 70.18 | $70 \cdot 00$ |
| 71 | $71 \cdot 72$ | 71.54 | $71 \cdot 36$ | 71.18 | 71.00 |
| 72 | 72.71 | 72.53 | $72 \cdot 36$ | $72 \cdot 18$ | 72.00 |
| 73 | 73.71 | $73 \cdot 53$ | $73 \cdot 36$ | $73 \cdot 18$ | 73.00 |
| 74 | 74.70 | 74.53 | 74.35 | $74 \cdot 18$ | 74.00 |
| 75 | $75 \cdot 70$ | $75 \cdot 52$ | $75 \cdot 35$ | $75 \cdot 17$ | 75.00 |

$56^{\circ}-60^{\circ}$
TRUE PER CENT.

|  | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $76 \cdot 69$ | 76.52 | $76 \cdot 34$ | $76 \cdot 17$ | 76.00 |
| 77 | 77.69 | 77.52 | 77.34 | $77 \cdot 17$ | $77 \cdot 0$ |
| 78 | 78.69 | 78.52 | 78.34 | $78 \cdot 17$ | 78.00 |
| 79 | $79 \cdot 67$ $80 \cdot 67$ | 79.50 80.50 | 79.34 80.34 | $79 \cdot 17$ $80 \cdot 17$ | 79.00 80.00 |
| 80 | $80 \cdot 67$ 81.66 | 80.50 81.50 | 8.34 81.33 |  |  |
| 82 | 82.66 | 82-49 | 82.33 | $82 \cdot 16$ | 82.00 |
| 83 | 83.66 | 83.49 | 83.33 | $83 \cdot 16$ | 83.00 |
| 84 | 84.65 | 84.49 | $84 \cdot 32$ | $84 \cdot 16$ | 84.00 |
| 85 | $85 \cdot 63$ | $85 \cdot 47$ | 85.32 | $85 \cdot 16$ | 85.00 |
| 86 | 86.64 | 86.48 | 86.32 | $86 \cdot 16$ | 86.00 |
| 87 | 87.61 | 87.46 | 87.30 | 87.15 | 87.00 |
| 88 |  | 88.45 | 88.30 | $88 \cdot 15$ | 88.00 |
| 89 | 89.60 | 89.45 | 89.30 | 89.15 | 89.00 |
| 90 | $90 \cdot 56$ | $90 \cdot 42$ | $90 \cdot 28$ | $90 \cdot 14$ | 90.00 |
| 91 | 91.55 | 91.41 | 91.28 | 91.14 | 9 r .00 |
| 92 | 92.56 | $92 \cdot 42$ | 92.28 | 92-14 | 92.00 |
| 93 | 93.55 | $93 \cdot 41$ | 93.28 | 93.14 | $93^{\circ} 00$ |
| 94 | 94.50 | $94 \cdot 38$ | 94.25 | $94 \cdot 13$ | 94.00 |
| 95 | $95 \cdot 48$ | $95 \cdot 36$ | $95 \cdot 24$ | 95.12 | $95^{\circ} 00$ |
| 96 | 96.46 | 96.35 | $96 \cdot 23$ | $96 \cdot 12$ | 96.00 |
| 97 | 97.45 | 97.34 | 97.22 | 97.11 | 9700 |
| 98 99 | $98 \cdot 43$ $99 \cdot 42$ | $98 \cdot 32$ $99 \cdot 32$ | $98 \cdot 22$ 99.21 | $98 \cdot 11$ 99.11 | 98.00 99.00 |
| 100 | 100.42 | $100 \cdot 31$ | $100 \cdot 21$ | $100 \cdot 10$ | $100 \cdot 0$ |

$61^{\circ}-65^{\circ}$
TRUE PER CENT.

| $\mid$ | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.95 | 0.91 | 0.86 | 0.82 | 0.77 |
| 2 | 1.95 | 1.90 | I. 84 | I 79 | I-74 |
| 3 | 2.95 | 2.89 | $2 \cdot 84$ | $2 \cdot 78$ | $2 \cdot 73$ |
| 4 | 3.94 | $3 \cdot 89$ | $3 \cdot 83$ | $3 \cdot 78$ | $3 \cdot 72$ |
| 5 | 4.94 | $4 \cdot 87$ | 4.8 I | 474 | $4 \cdot 68$ |
| 6 | $5 \cdot 93$ | 5.86 | $5 \cdot 80$ | 5:73 | 8 5.66 |
| 7 | 6.93 | 6.86 | $6 \cdot 78$ | $6 \cdot 71$ | 8.64 |
| 8 | 7.93 | 7.85 | $7 \cdot 78$ | 770 | 7.63 |
| 9 | $8 \cdot 92$ | $8 \cdot 85$ | $8 \cdot 77$ | $8 \cdot 70$ | 8.62 |
| 10 | 9.91 | $9 \cdot 82$ | $9 \cdot 73$ | $9 \cdot 64$ | 89.55 |
| 11 | 10.90 | 10.81 | 10.71 | 10.62 | 10.52 |
| 12 | 11.90 | I I.80 | 11.71 | 11.61 | 11.51 |
| 13 | 12.89 | 12.79 | 12.68 | 12.58 | 12.47 |
| 14 | 13.89 | 13.78 | 13.66 | 1355 | 13.44 |
| 15 | 14.88 | 14.75 | 14.63 | 1450 | 14.38 |
| 16 | 15.87 | $15 \cdot 74$ | $15 \cdot 61$ | 15.48 | $15 \cdot 35$ |
| 17 | 16.86 | 16.72 | 16.59 | 16.45 | 16.31 |
| 18 | 17.85 | 17.71 | 17.56 | 17.42 | 17.27 |
| 19 | 18.84 | 18.68 | 18.53 | 18.37 | 18.21 |
| 20 | 19.83 | 19.66 | 19.50 | 19.33 | 19.16 |
| 21 | 20.82 | $20 \cdot 64$ | 20.47 | $20 \cdot 29$ | $20 \cdot 11$ |
| 22 | $2 \mathrm{I} \cdot 8 \mathrm{I}$ | 21.62 | -21.44 | $21 \cdot 25$ | 21.06 |
| 23 | 22.80 | 22.61 | 22.41 | 22.22 | 22.02 |
| 24 | $23 \cdot 80$ | 23.60 | 23.40 | 23.20 | 23.00 |
| 25 | 24.80 | $24 \cdot 60$ | 24.40 | $24: 20$ | 24.00 |

$61^{\circ}-65^{\circ}$
TRUE PER CENT.

|  | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 25.79 | 25.59 | $25 \cdot 38$ | $25 \cdot 18$ | 24.97 |
| 27 | 26.79 | $26 \cdot 57$ | $26 \cdot 36$ | $26 \cdot 14$ | 25.93 |
| 28 | $27 \cdot 79$ | 27.57 | $27 \cdot 36$ | $27 \cdot 14$ | $26 \cdot 93$ |
| 29 | $28 \cdot 78$ | $28 \cdot 56$ | 28.35 | 28-13 | 27.91 |
| 30 | 29.78 | 29.56 | 29.33 | 29.11 | 28.89 |
| 31 | 30.78 | 30.57 | $30 \cdot 35$ | 30.14 | 29.92 |
| 32 | 31.78 | 31.55 | 31-33 | $31 \cdot 10$ | 30.88 |
| 33 | $32 \cdot 78$ | 32.56 | $32 \cdot 34$ | $32 \cdot 12$ | 31.90 |
| 34 | 33.78 | 33.56 | $33 \cdot 34$ | $33 \cdot 12$ | 32.90 |
| 35 | $34^{\prime} 78$ | 34.56 | 34.33 | $34 \cdot 11$ | 33.89 |
| 36 | $35 \cdot 78$ | 35.56 | 35.34 | $35 \cdot 12$ | 34.90 |
| 37 | $36 \cdot 77$ | 36.55 | $36 \cdot 32$ | $36 \cdot 10$ | 35.87 |
| 38 | $37 \cdot 78$ | 37.55 | 37.33 | $37 \cdot 10$ | ${ }^{36} 888$ |
| 39 | $38 \cdot 77$ | $38 \cdot 55$ | $38 \cdot 32$ | $38 \cdot 10$ | 37.87 |
| 40 | $39 \cdot 79$ | 39.57 | $39 \cdot 36$ | 39-14 | 38.93 |
| 41 | $40 \cdot 78$ | $40 \cdot 57$ | $40 \cdot 35$ | $40 \cdot 14$ | 39.92 |
| 42 | $41 \cdot 79$ | 41.57 | 41.36 | 41.14 | $40 \cdot 93$ |
| 43 | $42 \cdot 79$ | $42 \cdot 57$ | $42 \cdot 36$ | $42 \cdot 14$ | 41.93 |
| 44 | $43 \cdot 78$ | 43.57 | $43 \cdot 36$ | $43 \cdot 15$ | 42.94 |
| 45 | 44.78 | 44.58 | $44 \cdot 36$ | $44 \cdot 15$ | 43.94 |
| 46 | 4579 | $45 \cdot 58$ | $45 \cdot 37$ | $45 \cdot 16$ | 44.95 |
| 47 | $46 \cdot 79$ | $46 \cdot 59$ | $46 \cdot 38$ | $46 \cdot 18$ | 45.97 |
| 48 | $47 \cdot 79$ | $47 \cdot 59$ | $47 \cdot 38$ | $47 \cdot 18$ | $46 \cdot 97$ |
| 49 | $48 \cdot 79$ | $48 \cdot 59$ | $48 \cdot 38$ | $48 \cdot 18$ | 47.97 |
| 50 | $49 \cdot 79$ | 49.59 | $49 \cdot 38$ | $49 \cdot 18$ | 48.97 |

$$
61^{\circ}-65^{\circ}
$$

true per cent.

| 習: | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 50.8 | 50.61 |  | 50 |  |
| 52 | 51.80 | 51.60 | 51.41 | 51.21 | 1 |
| 53 | $52 \cdot 80$ | $52 \cdot 60$ | 52.41 | 52.2 | . 01 |
| 54 | 53.80 | $53 \cdot 61$ | 53.41 | 53.22 | 53.02 |
| 55 | 54.80 | $54 \cdot 61$ | 54.41 | 54.22 | 54.02 |
| 56 | 55.81 | 55.61 | 55.42 | 55.22 |  |
| 57 | 56.81 | 56.61 | 56.42 | 56.23 |  |
| 58 | 57.81 | 57.62 | 57.42 | 57.23 | 57.04 |
| 59 |  | 58.62 | 58.54 | 58.24 |  |
| 60 | 59.81 | $59 \cdot 62$ | 59.43 | 59.24 | 59.05 |
| 61 | 60.81 | 60.62 | 60 | 60.24 | 5 |
| 62 | $6 \mathrm{I} \cdot 81$ | 61.62 | 61.44 | 61.25 | 06 |
| 63 | 62.81 | $62 \cdot 62$ | 62.44 | 62 | 06 |
| 64 | 63.81 | 63.63 | 63.44 | $63 \cdot 26$ |  |
| 65 |  | 64.63 | 64.45 | $64 \cdot 26$ |  |
| 66 | $65 \cdot 82$ | 65.63 | 65. | $65 \cdot 26$ | . 08 |
| 67 | $66 \cdot 82$ | 66.63 | 66.45 | 66.26 | 66.08 |
| 68 | $67 \cdot 82$ | 67.63 | 67.45 | $67 \cdot 26$ | 67.08 |
| 69 | 68.82 | 68.64 | 68.47 | 68.29 | $68 \cdot 11$ |
| 70 | $69 \cdot 82$ | 69.64 | 69.47 | 69.29 |  |
| 71 | $70 \cdot 82$ | $70 \cdot 65$ | 70.47 | $70 \cdot 30$ | $70 \cdot 12$ |
| 72 | 71.82 | 71.65 | 71.47 | 71.30 | $71 \cdot 12$ |
| 73 | 72.83 | $72 \cdot 65$ | 72.48 | 72.30 | $72 \cdot 13$ |
| 74 | 73.83 | 73.66 | 73.48 | 73.31 | $73 \cdot 14$ |
| 75 | 74.83 | 74.66 | 74.49 | 74.32 | $74 \cdot 15$ |

TRUE PER CENT．

| 家熍家 | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $75 \cdot 83$ | $75 \cdot 66$ | $75 \cdot 50$ | $75 \cdot 33$ | 75．16 |
| 77 | 76.83 | $76 \cdot 66$ | $76 \cdot 50$ | $76 \cdot 33$ | $76 \cdot 16$ |
| 78 | $77 \cdot 84$ | $77 \cdot 67$ | 77.51 | $77 \cdot 34$ |  |
| 79 | $78 \cdot 84$ | $78 \cdot 67$ | 78.51 | $78 \cdot 34$ | $78 \cdot 18$ |
| 80 | $79 \cdot 84$ | $79 \cdot 67$ | 79.51 | $79 \cdot 34$ | $79 \cdot 18$ |
| 81 | $80 \cdot 84$ | $80 \cdot 68$ | 80.52 | $80 \cdot 36$ | $80 \cdot 20$ |
| 82 | $8 \mathrm{I} \cdot 84$ | 8 I 68 | 81.52 | 81．36 | 81.20 |
| 83 | $82 \cdot 84$ | $82 \cdot 68$ | 82.53 | $82 \cdot 37$ | $82 \cdot 21$ |
| 84 | $83 \cdot 84$ | $83 \cdot 69$ | 83.53 | 83.38 | 83.22 |
| 85 | $84 \cdot 84$ | 84.69 | 84.53 | 84.38 | 84.22 |
| 86 | $85 \cdot 85$ | $85 \cdot 70$ | 85.56 | 85.41 | $85 \cdot 26$ |
| 87 | $86 \cdot 85$ | 86.71 | 86.56 | $86 \cdot 42$ | $86 \cdot 27$ |
| 88 | 87.85 | $87 \cdot 71$ | 87.56 | 87.42 | 87.27 |
| 89 | 88.86 | $88 \cdot 72$ | 88.57 | $88 \cdot 43$ | 88．29 |
| 90 | 89.86 | $89 \cdot 73$ | 89.59 | 89.46 | $89 \cdot 32$ |
| 1 | $90 \cdot 86$ | 90．73 | $90 \cdot 59$ | $90 \cdot 46$ | $90 \cdot 32$ |
| 92 | 91．86 | 91.72 | 91.59 | 91.45 | 91．31 |
| 93 | 92.88 | $92 \cdot 75$ | 92.63 | 92.50 | 92．38 |
| 94 | 93.88 | $93 \cdot 76$ | 93.64 | 93.52 | 93.40 |
| 95 | 94.88 | 94.77 | 94.65 | 94.54 | 94.42 |
| 96 | $95 \cdot 89$ | $95 \cdot 78$ | 95.66 | 95.55 |  |
| 97 | 96.89 | $96 \cdot 78$ | $96 \cdot 68$ | 96.57 | $96 \cdot 46$ |
| 98 | $97 \cdot 89$ | 97.79 | $97 \cdot 68$ | 97.58 | $97 \cdot 47$ |
| 99 | $98 \cdot 90$ | 98.80 | 98.69 | 98.59 | 98.49 |
| 100 | 99．90 | 99.80 | 99.71 | 99.61 | 99．51 |

$66^{\circ}-70^{\circ}$
TRUE PER CENT.

| 总 | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $0 \cdot 74$ | 0.71 | 0.67 | 0.64 | 0.61 |
| 2 | 1.69 | 1.65 | 1. 60 | 1.56 | 1.51 |
| 3 | $2 \cdot 68$ | $2 \cdot 62$ | $2 \cdot 57$ | 2.51 | $2 \cdot 46$ |
| 4 | $3 \cdot 66$ | $3 \cdot 60$ | 3.54 | 3.48 | 3.42 |
| 5 | $4 \cdot 62$ | 4.55 | 4.49 | $4 \cdot 42$ | $4 \cdot 36$ |
| 6 | $5 \cdot 59$ | 5.51 | $5 \cdot 44$ | $5 \cdot 36$ | $5 \cdot 29$ |
| 7 | $6 \cdot 56$ | $6 \cdot 49$ | $6 \cdot 41$ | $6 \cdot 34$ | $6 \cdot 26$ |
| 8 | 755 | $7 \cdot 47$ | $7 \cdot 39$ | $7 \cdot 31$ | $7 \cdot 23$ |
| 9 | $8 \cdot 53$ | $8 \cdot 45$ | $8 \cdot 36$ | $8 \cdot 28$ | $8 \cdot 19$ |
| 10 | $9 \cdot 43$ | $9 \cdot 34$ | $9 \cdot 25$ | $9 \cdot 16$ | 9.07 |
| 11 | 10.42 | $10 \cdot 32$ | 10.23 | 10.13 | 10.03 |
| 12 | 11.40 | 11.30 | I I•19 | 11.09 | 10.98 |
| 13 | $12 \cdot 36$ | I $2 \cdot 25$ | $12 \cdot 14$ | 12.03 | 11.92 |
| 14 | 13.32 | 13.20 | 13.07 | 12.95 | 12.83 |
| 15 | 14.25 | 14.13 | 14.00 | 13.88 | 13.75 |
| 16 | 15.22 | 15.08 | 14.95 | 14.81 | 14.68 |
| 17 | $16 \cdot 17$ | 16.03 | 15.88 | 15.74 | 15.61 |
| 18 | $17 \cdot 12$ | 16.97 | 16.83 | 16.68 | 16.53 |
| 19 | 18.05 | 17.90 | 17.74 | 17.59 | 17.43 |
| 20 | 18.99 | 18.83 | 18.66 | 18.50 | $18 \cdot 33$ |
| 21 | 19.94 | 19.76 | 19.59 | 19.41 | 19.24 |
| 22 | 20.87 | 20.69 | 20.50 | $20 \cdot 32$ | 20.13 |
| 23 | 21.83 | $2 \mathrm{I} \cdot 64$ | 21.46 | $21 \cdot 27$ | 21.08 |
| 24 | 22.81 | 22.63 | 22.44 | $22 \cdot 26$ | 22.07 |
| 25 | 23.81 | 23.62 | 23.43 | $23 \cdot 24$ | 23.05 |

$66^{\circ}-70^{\circ}$
TRUE PER CENT．

| 管家家 | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 24.77 | 24.57 | 24.38 | $24 \cdot 18$ | 23.98 |
| 27 | $25 \cdot 73$ | 25.54 | $25 \cdot 34$ | $25 \cdot 15$ | 24.95 |
| 28 | $26 \cdot 73$ | 26.53 | 26.33 | $26 \cdot 13$ | 25.93 |
| 29 | 27．71 | $27 \cdot 50$ | 27.30 | 27.09 | 26.89 |
| 30 | 28.69 | $28 \cdot 49$ | $28 \cdot 28$ | 28.08 | 27.88 |
| 31 | 29.71 | 29，50 | 29.30 | 29.09 | 28.88 |
| 32 | $30 \cdot 68$ | $30 \cdot 47$ | 30.27 | 30.06 | 29.86 |
| 33 | 31.69 | 31.49 | $3 \mathrm{I} \cdot 28$ | 3 I .08 | $30 \cdot 87$ |
| 34 | 32.69 | 32.48 | $32 \cdot 28$ | 32.07 | 31.86 |
| 35 | $33 \cdot 69$ | 33.48 | $33 \cdot 28$ | $33 \cdot 07$ | 32.87 |
| 36 | 34.69 | 34.49 | $34 \cdot 28$ | 34.08 | 33.87 |
| 37 | $35 \cdot 66$ | $35 \cdot 46$ | $35 \cdot 25$ | 35.05 | $3+84$ |
| 38 | $36 \cdot 67$ | $36 \cdot 46$ | $36 \cdot 24$ | $36 \cdot 03$ | 35.82 |
| 39 | $37 \cdot 67$ | $37 \cdot 46$ | $37 \cdot 26$ | 37.05 | $36 \cdot 85$ |
| 40 | $38 \cdot 73$ | $38 \cdot 5^{2}$ | $38 \cdot 32$ | $3^{8 \cdot 11}$ | 37.91 |
| 41 | 39.72 | 39.52 | $39^{\circ} 31$ | 39．1 I | $38 \cdot 91$ |
| 42 | $40 \cdot 73$ | $40 \cdot 53$ | $40 \cdot 32$ | $40 \cdot 12$ | $39^{\circ} 92$ |
| 43 | $41 \cdot 73$ | $41 \cdot 52$ | $41 \cdot 32$ | 4I•II | $40 \cdot 91$ |
| 44 | $42 \cdot 74$ | $42 \cdot 53$ | $42 \cdot 33$ | $42 \cdot 12$ | $41 \cdot 92$ |
| 45 | $43 \cdot 74$ | $43 \cdot 54$ | $43 \cdot 34$ | $43 \cdot 14$ | $42 \cdot 94$ |
| 46 | $44 \cdot 75$ | 44.55 | $44 \cdot 37$ | $44 \cdot 17$ |  |
| 47 | 45.77 | $45 \cdot 57$ | $45 \cdot 38$ | 45．18 | 44.98 |
| 48 | $46 \cdot 77$ | $46 \cdot 58$ | $46 \cdot 38$ | $46 \cdot 19$ | 45.99 |
| 49 | $47 \cdot 77$ | $47 \cdot 57$ 48.59 | $47 \cdot 38$ $48 \cdot 40$ | $47 \cdot 18$ $48 \cdot 21$ | $46 \cdot 98$ $48 \cdot 02$ |
| 50 | $48 \cdot 78$ | $48 \cdot 59$ | $48 \cdot 40$ | $48 \cdot 21$ | $48 \cdot 02$ |

$66^{\circ}-70^{\circ}$
TRUE PER CENT．

| .⿷⿹勹巳y | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $49 \cdot 83$ | $49 \cdot 64$ | $49 \cdot 44$ | $49 \cdot 25$ | $49 \cdot 06$ |
| 52 | $50 \cdot 82$ | 50.63 | 50.43 | 50.24 | 50.05 |
| 53 | 51.82 | 51.63 | 51.44 | $51 \cdot 25$ | 51.06 |
| 54 | $52 \cdot 83$ | $52 \cdot 64$ | $52 \cdot 44$ | 52.25 | 52.06 |
| 55 | $53 \cdot 83$ | $53 \cdot 64$ | 53.45 | 53.26 | 53.07 |
| 56 | $54 \cdot 84$ | 54.64 | 54.46 | 54.28 | 54.09 |
| 57 | $55 \cdot 85$ | $55 \cdot 66$ | $55 \cdot 48$ | $55 \cdot 29$ | $55 \cdot 10$ |
| 58 | $56 \cdot 85$ | 56.67 | 56.48 | $56 \cdot 30$ | 56．11 |
| 59 | $57 \cdot 87$ | 57.68 | 57.50 | 57.31 | $57 \cdot 13$ |
| 60 | $58 \cdot 87$ | $58 \cdot 69$ | $58 \cdot 50$ | $58 \cdot 3^{2}$ | $58 \cdot 14$ |
| 61 | 59.87 | $59 \cdot 68$ | 59.50 | 59．31 | 59：13 |
| 62 | 60.87 | $60 \cdot 69$ | $60 \cdot 50$ | $60 \cdot 32$ | $60 \cdot 13$ |
| 63 | 61.88 | $61 \cdot 69$ | 61.51 | $61 \cdot 32$ | 61．14 |
| 64 | $62 \cdot 89$ | $62 \cdot 71$ | 62.53 | $62 \cdot 35$ | $62 \cdot 17$ |
| 65 | 63.90 | $63 \cdot 72$ | 63.55 | 63.37 | $63 \cdot 19$ |
| 66 | 64.90 | 64.73 | 64.55 | $64 \cdot 38$ | $64 \cdot 20$ |
| 67 | 65.90 | $65 \cdot 72$ | 65.55 | $65 \cdot 37$ | $65 \cdot 19$ |
| 68 | $66 \cdot 91$ | $66 \cdot 74$ | $66 \cdot 56$ | $66 \cdot 39$ | $66 \cdot 22$ |
| 69 | 67.94 | $67 \cdot 76$ | 67.59 | 67.41 | $67 \cdot 24$ |
| 70 | $68 \cdot 94$ | $68 \cdot 77$ | 68.59 | $68 \cdot 4^{2}$ | 68.25 |
| 71 | 69.95 | 69.77 | $69 \cdot 60$ | 69.42 | 69.25 |
| 72 | $70 \cdot 95$ | 70．77 | $70 \cdot 60$ | $70 \cdot 42$ | 70.25 |
| 73 | 71.96 | 71.79 | $71 \cdot 62$ | 71.45 | 71．28 |
| 74 | 72.97 | 72.80 | $72 \cdot 63$ | $72 \cdot 46$ | $72 \cdot 29$ |
| 75 | $73 \cdot 98$ | $73 \cdot 81$ | $73 \cdot 64$ | 73.47 | 73.30 |

$66^{\circ}-70^{\circ}$
TRUE PER CENT.

| 皆品 | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 74.99 | $74 \cdot 82$ | $74 \cdot 66$ | 74.49 | $74{ }^{12}$ |
| 77 | $76 \cdot 00$ | $75 \cdot 83$ | $75 \cdot 67$ | $75 \cdot 50$ | $75 \cdot 34$ |
| 78 | 77.02 | $76 \cdot 85$ | $76 \cdot 69$ | $76 \cdot 52$ | $76 \cdot 36$ |
| 79 | $78 \cdot 02$ | $77 \cdot 85$ | $77 \cdot 69$ | $77 \cdot 52$ | $77 \cdot 36$ |
| 80 | 79.02 | $78 \cdot 86$ | $78 \cdot 70$ | $78 \cdot 54$ | $78 \cdot 38$ |
| 81 | 80.04 | $79 \cdot 88$ | $79 \cdot 72$ | 79.56 | 40 |
| 82 | 81.04 | $80 \cdot 89$ | $80 \cdot 73$ | 80.58 | 80.42 |
| 83 | 82.06 | 81.90 | 81.75 | 81.59 | 81.44 |
| 84 | 83.07 | 82.91 | $82 \cdot 76$ | $82 \cdot 60$ | 82.45 |
| 85 | 84.07 | 83.92 | $83 \cdot 77$ | $83 \cdot 62$ | 83.47 |
| 86 | $85 \cdot 11$ | 84.96 | 84.82 | $84 \cdot 67$ | 84.52 |
| 87 | $86 \cdot 12$ | 85.98 | 85.83 | $85 \cdot 69$ | $85 \cdot 54$ |
| 88 | $87 \cdot 13$ | $86 \cdot 99$ | 86.84 | $86 \cdot 70$ | 86.56 |
| 89 | $88 \cdot 15$ | 88.02 | 87.88 | $87 \cdot 75$ | 87.61 |
| 90 | $89 \cdot 18$ | 89.05 | 88.91 | $88 \cdot 78$ | $88 \cdot 64$ |
| 91 | 90.18 | $90 \cdot 05$ | 89.91 | 89.78 | $89 \cdot 64$ |
| 92 | 91.18 | 91.06 | 90.93 | $90 \cdot 81$ | 90.68 |
| 93 | 92.26 | 92.14 | 92.02 | 91.90 | 91.78 |
| 94 | $93 \cdot 28$ | $93 \cdot 16$ | 93.05 | $92 \cdot 93$ | 92.8 I |
| 95 | $94 \cdot 31$ | 94.19 | 94.08 | $93 \cdot 96$ | 93.85 |
| 96 | $95 \cdot 33$ | $95 \cdot 22$ | 95.10 | 94.99 | 94.88 |
| 97 | $96 \cdot 35$ | $96 \cdot 24$ | 96.14 | $96 \cdot 03$ | 95.92 |
| 98 | $97 \cdot 37$ | $97 \cdot 27$ | 97-16 | 97.06 | $96 \cdot 96$ |
| 99 | $98 \cdot 39$ | $98 \cdot 29$ | 98.19 | $98 \cdot 09$ | $97 \cdot 97$ |
| 100 | 99.42 | $99 \cdot 32$ | $99 \cdot 23$ | 99 13 | $99^{\circ} 04$ |

$71^{\circ}-75^{\circ}$
TRUE PER CENT.

| $\left\lvert\, \begin{gathered} \text { dit } \\ \text { 宫家 } \\ \hline \end{gathered}\right.$ | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.58 | 0.56 | 0.53 | 0.51 | 0.48 |
| 2 | 1.47 | 1.42 | 1.38 | 1.33 | I-29 |
| 3 | $2 \cdot 41$ | $2 \cdot 35$ | $2 \cdot 30$ | $2 \cdot 24$ | $2 \cdot 19$ |
| 4 | $3 \cdot 36$ | $3 \cdot 30$ | $3 \cdot 24$ | $3 \cdot 18$ | $3 \cdot 12$ |
| 5 | $4 \cdot 29$ | $4 \cdot 22$ | 4.14 | 4.07 | $4 \cdot 00$ |
| 6 | $5 \cdot 22$ | $5 \cdot 14$ | 5.07 | 4.99 | 4.92 |
| 7 | $6 \cdot 18$ | $6 \cdot 10$ | $6 \cdot 02$ | 5.94 | 18.86 |
| 8 | 78.15 | 7.06 | 6.98 | 6.89 | $6 \cdot 81$ |
| 9 | $=8.09$ | 8.00 | $7 \cdot 90$ | 7.81 | $7 \cdot 71$ |
| 10 | $8 \cdot 97$ | $8 \cdot 88$ | $8 \cdot 78$ | $8 \cdot 69$ | $8 \cdot 59$ |
| 11 | $9 \cdot 92$ | $9 \cdot 81$ | $9 \cdot 71$ | $9 \cdot 60$ | 9.49 |
| 12 | 10.87 | 10.76 | 10.65 | 10.54 | 10.43 |
| 13 | 11.80 | 11.68 | 11.56 | 11.44 | 1 1 32 |
| 14 | 12.70 | 12.57 | 12.45 | $12 \cdot 32$ | $12 \cdot 19$ |
| 15 | $13 \cdot 62$ | 13.49 | 13.36 | 13.23 | $13 \cdot 10$ |
| 16 | 14.54 | 14.41 | 14.27 | 14.14 | 14.00 |
| 17 | 15.47 | $15 \cdot 32$ | $15 \cdot 18$ | 15.03 | 14.89 |
| 18 | $16 \cdot 38$ | 16.23 | 16.08 | 15.93 | 15.78 |
| 19 | 17.27 | $17 \cdot 11$ | 16.96 | 16.80 | 16.64 |
| 20 | $18 \cdot 17$ | 18.00 | 17.84 | 17.67 | 17.51 |
| 21 | 19.06 | 18.88 | 18.71 | 18.53 | 18.35 |
| 22 | 19.95 | 19.77 | 19.58 | 19.40 | 19.22 |
| 23 | 20.90 | 20.72 | 20.54 | $20 \cdot 36$ | 20.18 |
| 24 | $2 \mathrm{I} \cdot 89$ | 21.70 | $2 \mathrm{I} \cdot 52$ | 21.33 | 21.15 |
| 25 | 22.86 | 22.68 | 22.49 | 22.3 I | $22 \cdot 12$ |

## $71^{\circ}-75^{\circ}$

TRUE PER CENT.

| 总 | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $23 \cdot 80$ | 23.61 | 23.43 | 23.24 | 23.06 |
| 27 | 24.76 | 24.57 | 24.39 | 24.20 | 24.01 |
| 28 | $25 \cdot 74$ | $25 \cdot 55$ | $25 \cdot 37$ | $25 \cdot 18$ | 24.99 |
| 29 | $26 \cdot 70$ | $26 \cdot 52$ | 26.33 | $26 \cdot 15$ | 25.96 |
| 30 | $27 \cdot 69$ | 27.50 | $27 \cdot 31$ | $27 \cdot 12$ | $26 \cdot 93$ |
| 31 | $28 \cdot 69$ | $28 \cdot 50$ | $28 \cdot 31$ | $28 \cdot 12$ | 27.93 |
| 32 | 29.67 | 29.48 | 29.30 | 29.11 | 28.92 |
| 33 | $30 \cdot 68$ | 30.49 | $30 \cdot 29$ | $30 \cdot 10$ | 29.91 |
| 34 | 31.67 | 31.48 | 31.29 | $31 \cdot 10$ | 30.91 |
| 35 | $32 \cdot 67$ | $32 \cdot 48$ | $32 \cdot 28$ | 32.09 | 31.89 |
| 36 | 33.67 | 33.48 | $33 \cdot 28$ | 33.09 | $32 \cdot 89$ |
| 37 | $34 \cdot 64$ | 34.44 | $34 \cdot 25$ | 34.05 | 33.85 |
| 38 | $35 \cdot 63$ | $35 \cdot 43$ | $35 \cdot 24$ | $35 \cdot 04$ | 34.85 |
| 39 | $36 \cdot 66$ | $36 \cdot 47$ | $36 \cdot 27$ | 36.08 | $35 \cdot 89$ |
| 40 | $37 \cdot{ }^{2}$ | $37 \cdot 53$ | $37 \cdot 33$ | $37 \cdot 14$ | $36 \cdot 95$ |
| 4 | $38 \cdot 72$ | $38 \cdot 53$ | $38 \cdot 33$ | $38 \cdot 14$ | 5 |
| 42 | $39 \cdot 73$ | $39 \cdot 54$ | $39 \cdot 34$ | $39^{\cdot 15}$ | $38 \cdot 96$ |
| 43 | $40 \cdot 72$ | $40 \cdot 53$ | $40 \cdot 34$ | $40 \cdot 14$ | 39.95 |
| 44 | $41 \cdot 73$ | 41.54 | 41•35 | 41.16 | $40 \cdot 97$ |
| 45 | $42 \cdot 76$ | $42 \cdot 57$ | $42 \cdot 39$ | $42 \cdot 20$ | $42 \cdot 00$ |
| 46 | $43 \cdot 78$ | 43.59 | $43 \cdot 41$ | $43 \cdot 22$ | $43 \cdot 03$ |
| 47 | 44.79 | $44 \cdot 60$ | 44.41 | $44 \cdot 22$ | 44.03 |
| 48 | 45.80 | $45 \cdot 61$ | $45 \cdot 42$ | $45 \cdot 23$ | $45 \cdot 04$ |
| 49 | $46 \cdot 80$ | $46 \cdot 62$ | $46 \cdot 43$ | $46 \cdot 25$ | $46 \cdot 07$ |
| 50 | $47 \cdot 84$ | $47 \cdot 65$ | $47 \cdot 47$ | $47 \cdot 28$ | $47 \cdot 10$ |

$$
71^{\circ}-75^{\circ}
$$

TRUE PER CENT.

|  | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $48 \cdot 87$ | $48 \cdot 69$ | $48 \cdot 50$ | $48 \cdot 32$ | 48.13 |
| 52 | $49 \cdot 87$ | $49 \cdot 68$ | $49 \cdot 50$ | $49 \cdot 31$ | $49^{1} 13$ |
| 53 | $50 \cdot 87$ | 50.69 | $50 \cdot 50$ | $50 \cdot 32$ | $50 \cdot 13$ |
| 54 | 51.88 | 51.69 | 51.51 | $51 \cdot 32$ | 51.14 |
| 55 | 52.89 | $52 \cdot 70$ | 52.52 | $52 \cdot 33$ | $52 \cdot 15$ |
| 56 | 53.92 | 53.72 | 53.55 | 53.35 | $53 \cdot 17$ |
| 57 | 54.92 | 54.74 | 54.57 | 54.39 | $54 \cdot 21$ |
| 58 | 55.93 | $55 \cdot 76$ | $55 \cdot 58$ | $55^{\circ} 4 \mathrm{I}$ | $55 \cdot 23$ |
| 59 | 56.95 | $56 \cdot 77$ | $56 \cdot 60$ | $56 \cdot 42$ | $56 \cdot 24$ |
| 60 | 57.96 | $57 \cdot 78$ | 57.59 | 57.41 | 57.23 |
| 61 | $58 \cdot 95$ | $58 \cdot 77$ | $58 \cdot 59$ | $58 \cdot 41$ | $58 \cdot 23$ |
| 62 | 59.95 | $59 \cdot 77$ | 59.59 | 59.41 | $59 \cdot 23$ |
| 63 | 60.96 | $60 \cdot 79$ | $60 \cdot 61$ | $60 \cdot 44$ | $60 \cdot 26$ |
| 64 | $61 \cdot 99$ | $6 \mathrm{I} \cdot 82$ | $6 \mathrm{I} \cdot 64$ | 6r.47 | $61 \cdot 29$ |
| 65 | 63.02 | $62 \cdot 84$ | $62 \cdot 67$ | $62 \cdot 49$ | $62 \cdot 32$ |
| 66 | 64.02 | $63 \cdot 85$ | $63 \cdot 67$ | $63 \cdot 50$ | $63 \cdot 32$ |
| 67 | 65.02 | 64.85 | $64 \cdot 68$ | 64.51 | 64.34 |
| 68 | 66.05 | $65 \cdot 88$ | $65 \cdot 70$ | 65.53 | $65 \cdot 36$ |
| 69 | 67.07 | $66 \cdot 90$ | $66 \cdot 73$ | -66.56 | $66 \cdot 39$ |
| 70 | 68.08 | 67.91 | $67 \cdot 73$ | 67.56 | $67 \cdot 39$ |
| 71 | 69.08 | 68.91 | $68 \cdot 75$ | $68 \cdot 58$ | $68 \cdot 41$ |
| 72 | $70 \cdot 09$ | $69 \cdot 92$ | $69 \cdot 76$ | 69.59 | $69 \cdot 43$ |
| 73 | 71.11 | 70.95 | $70 \cdot 78$ | $70 \cdot 62$ | $70 \cdot 45$ |
| 74 | $72 \cdot 13$ | $71 \cdot 96$ | 71.80 | 71.63 | 71.47 |
| 75 | $73 \cdot 14$ | $72 \cdot 98$ | $72 \cdot 81$ | 72.65 | 72.49 |

TRUE PER CENT.

|  | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $74 \cdot 16$ | 74.00 | 73.83 | $73 \cdot 67$ | 73.51 |
| 77 | 75.18 | 75.02 | 74.85 | 74.69 | 74.53 |
| 78 | $76 \cdot 20$ | 76.04 | 75.89 | $75 \cdot 73$ | 75.57 |
| 79 | $77 \cdot 20$ | 77.05 | 76.89 | $76 \cdot 74$ | $76 \cdot 58$ |
| 80 | $78 \cdot 22$ | $78 \cdot 07$ | 77.91 | $77 \cdot 76$ | $77 \cdot 60$ |
| 81 | 79.25 | 79.09 | $78 \cdot 94$ | $78 \cdot 78$ | 78.63 |
| 82 | 80.27 | $80 \cdot 11$ | 79.96 | 79.80 | 79.65 |
| 83 | 81.29 | 81.14 | $80 \cdot 98$ | 80.83 | 80.68 |
| 84 | $82 \cdot 30$ | $82 \cdot 15$ | 82.00 | 81.85 | 81.70 |
| 85 | $83 \cdot 33$ | $83 \cdot 18$ | 83.04 | 82.89 | $82 \cdot 75$ |
| 86 | $84 \cdot 3^{8}$ | $84 \cdot 24$ | 84.09 | 83.95 | $83 \cdot 8 \mathrm{I}$ |
| 87 | $85 \cdot 40$ | $85 \cdot 26$ | 85.11 | 84.97 | 84.83 |
| 88 | $86 \cdot 42$ | $86 \cdot 29$ | 86-15 | 86.02 | 85.88 |
| 89 | $87 \cdot 48$ | $87 \cdot 34$ | $87 \cdot 21$ | 87.07 | $86 \cdot 94$ |
| 90 | $88 \cdot 51$ | $88 \cdot 37$ | $88 \cdot 24$ | 88-10 | 87.97 |
| 91 | 89.51 | $89 \cdot 37$ | $89 \cdot 24$ | 89.10 | 88.97 |
| 92 | 90.56 | $90 \cdot 44$ | 90.31 | 90.19 | 90.07 |
| 93 | 91.66 | 91.54 | 91.43 | 91.31 | 91.19 |
| 94 | $92 \cdot 72$ | $92 \cdot 58$ | 92.47 | $92 \cdot 35$ | $92 \cdot 24$ |
| 95 | $93 \cdot 74$ | 93.63 | 93.52 | 93.4 I | 93.30 |
| 96 | 94.77 | 94.67 | 94.56 | 94.46 | 94.35 |
| 97 | 95.82 | $95 \cdot 71$ | 95.61 | $95 \cdot 50$ | 95.40 |
| 98 | $96 \cdot 86$ | $96 \cdot 75$ | 96.65 | $96 \cdot 54$ | $96 \cdot 44$ |
| 99 | $97 \cdot 87$ | 97.78 | $97 \cdot 68$ | 97.59 | 97.49 |
| 100 | 98.94 | $98 \cdot 84$ | $98 \cdot 74$ | 98.64 | 98.54 |

$$
76^{\circ}-80^{\circ}
$$

TRUE PER CENT.

|  | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.46 | 0.44 | $0 \cdot 43$ | 0.41 | $0 \cdot 39$ |
| 2 | 1. 25 | $1 \cdot 22$ | I•17 | 1-14 | I-1I |
| 3 | $2 \cdot 14$ | $2 \cdot 10$ | $2 \cdot 05$ | 2.01 | I.96 |
| 4 | 3.06 | 3.00 | $2 \cdot 93$ | 2.87 | 2.81 |
| 5 | 3.93 | $3 \cdot 86$ | $3 \cdot 79$ | $3 \cdot 72$ | $3 \cdot 65$ |
| 6 | $4 \cdot 84$ | 477 | $4 \cdot 69$ | $4 \cdot 62$ | 4.54 |
| 7 | $5 \cdot 78$ | $5 \cdot 70$ | $5 \cdot 61$ | $5 \cdot 53$ | 5.45 |
| 8 | $6 \cdot 72$ | $6 \cdot 64$ | $6 \cdot 55$ | $6 \cdot 47$ | $6 \cdot 38$ |
| 9 | $7 \cdot 61$ | 7.51 | $7 \cdot 42$ | $7 \cdot 32$ | $7 \cdot 22$ |
| 10 | $8 \cdot 48$ | $8 \cdot 38$ | $8 \cdot 27$ | 8.17 | 8.06 |
| 11 | 9*39 | $9 \cdot 28$ | 9.18 | 9.07 | $8 \cdot 97$ |
| 12 | 10.31 | 10.20 | 10.08 | 9.97 | 9.85 |
| 13 | 11.20 | 11.08 | 10.95 | 10.83 | 10.71 |
| 14 | 12.07 | 11.94 | 11.82 | 11.69 | 11.57 |
| 15 | 12.97 | 12.83 | 12.70 | 12.56 | 12.43 |
| 16 | 13.86 | 13.72 | 13.58 | 13.44 | 13.30 |
| 17 | 14.75 | 14.60 | 14.46 | 14.3 I | 14.17 |
| 18 | 15.63 | 15.48 | $15 \cdot 34$ | 15.19 | 15.04 |
| 19 | 16.49 | $16 \cdot 34$ | 16.18 | 16.03 | 15.88 |
| 20 | 17.35 | $17.18{ }^{\circ}$ | 17.02 | 16.85 | 16.69 |
| 21 | I $8 \cdot \mathrm{I} 8$ | I 8.01 | 17.85 | 17.68 | 17.51 |
| 22 | 19.05 | 18.88 | 18.71 | 18.54 | 18.37 |
| 23 | 20.01 | 19.83 | 19.66 | 19.48 | 19.31 |
| 24 | 20.97 | 20.80 | 20.62 | 20.45 | 20.27 |
| 25 | 21.95 | 21.78 | 21.60 | 21.43 | 21.26 |

$76^{\circ}-80^{\circ}$
TRUE PER CENT.

|  | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $22 \cdot 89$ | 22.71 | 22.54 | $22 \cdot 36$ | 22.19 |
| 27 | 23.83 | 23.66 | 23.48 | 23.31 | 23.13 |
| 28 | 24.81 | 24.64 | 24.46 | 24.29 | 24.11 |
| 29 | $25 \cdot 78$ | $25 \cdot 60$ | 25.43 | 25.25 | 25.07 |
| 30 | $26 \cdot 76$ | $26 \cdot 58$ | 26.41 | $26 \cdot 23$ | 26.06 |
| 31 | 27.75 | 27.58 | 27.40 | 27.23 | 27.05 |
| 32 | 28.74 | $28 \cdot 56$ | $28 \cdot 39$ | 28.21 | 28.03 |
| 33 | 29.73 | 29.55 | $29 \cdot 38$ | 29.20 | 29.02 |
| 34 | 30.73 | 30.55 | . $30 \cdot 37$ | $30 \cdot 19$ | 30.01 |
| 35 | 31.71 | 3153 | 3 $1 \cdot 35$ | 31-17 | 30.99 |
| 36 | 32.71 | 32.53 | 32•34 | $32 \cdot 16$ | 31.98 |
| 37 | 33.67 | 33.49 | $33 \cdot 3 \mathrm{I}$ | $33 \cdot 13$ | 32.95 |
| 38 | $34 \cdot 67$ | 34.49 | 34.30 | $34 \cdot 12$ | 33.94 |
| 39 | $35 \cdot 71$ | $35 \cdot 53$ | $35 \cdot 35$ | $35 \cdot 17$ | 34.99 |
| 40 | $36 \cdot 77$ | 36.59 | $36 \cdot 40$ | $36 \cdot 22$ | $36 \cdot 04$ |
| 41 | 37.77 | 37.59 | 37.40 | 37.22 | 37.04 |
| 42 | $38 \cdot 78$ | $38 \cdot 59$ | 38.41 | $38 \cdot 22$ | 38.04 |
| 43 | $39 \cdot 77$ | 39.59 | $39^{\circ} 4^{\circ}$ | $39^{\cdot 22}$ | $39^{\circ} 04$ |
| 44 | $40 \cdot 79$ | $40 \cdot 61$ | $40 \cdot 42$ | $40 \cdot 24$ | 40.06 |
| 45 | $41 \cdot 82$ | 4I.64 | 4I.45 | $4 \mathrm{I} \cdot 27$ | 41.09 |
| 46 | $42 \cdot 85$ | $42 \cdot 66$ | $42 \cdot 48$ | $42 \cdot 29$ | $42 \cdot \mathrm{II}$ |
| 47 | $43 \cdot 85$ | $43 \cdot 67$ | $43 \cdot 49$ | $43 \cdot 3 \mathrm{I}$ | $43 \cdot 13$ |
| 48 | $44 \cdot 86$ | 44.68 | 44.51 | 44.33 | $44 \cdot 15$ |
| 49 | $45 \cdot 89$ | $45 \cdot 71$ | $45 \cdot 54$ | $45 \cdot 36$ | $45 \cdot 18$ |
| 50 | $46 \cdot 92$ | $46 \cdot 74$ | $46 \cdot 56$ | $46 \cdot 38$ | $46 \cdot 20$ |

$$
76^{\circ}-80^{\circ}
$$

TRUE PER CENT.

| \% | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $47 * 95$ | $47 \cdot 78$ | $47 \cdot 60$ | $47 \cdot 43$ | $47 \cdot 25$ |
| 52 | $48 \cdot 95$ | $48 \cdot 78$ | $48 \cdot 60$ | $48 \cdot 43$ | $48 \cdot 25$ |
| 53 | 49.95 | $49 \cdot 78$ | $49 \cdot 60$ | $49 \cdot 43$ | $49 \cdot 25$ |
| 54 | $50 \cdot 96$ | $50 \cdot 78$ | $50 \cdot 61$ | 50.43 | 50.25 |
| 55 | $51 \cdot 97$ | $51 \cdot 79$ | $51 \cdot 62$ | 51.44 | 51.26 |
| 56 | 53.00 | 52.82 | $52 \cdot 65$ | 52.47 | $52 \cdot 30$ |
| 57 | 54.03 | 53.85 | $53 \cdot 68$ | 53.50 | $53 \cdot 32$ |
| 58 | $55 \cdot 05$ | 54.87 | 54.70 | 54.52 | 54.34 |
| 59 | 56.06 | $55 \cdot 88$ | 55.71 | 55.53 | 55.35 |
| 60 | 57.06 | $56 \cdot 89$ | $56 \cdot 71$ | $56 \cdot 54$ | $56 \cdot 37$ |
| 61 | 58.05 | 57.88 | 57.70 | 57.53 | $57 \cdot 35$ |
| 62 | 59.06 | $58 \cdot 89$ | 58.71 | 58.54 | $58 \cdot 37$ |
| 63 | 60.09 | 59.92 | $59 \cdot 74$ | 59.57 | 59.40 |
| 64 | $61 \cdot 12$ | 60.95 | $60 \cdot 78$ | $60 \cdot 61$ | $60 \cdot 44$ |
| 65 | $62 \cdot 15$ | 61.98 | $6 \mathrm{I} \cdot 81$ | $61 \cdot 64$ | 61.47 |
| 66 | $63 \cdot 15$ | 62.99 | $62 \cdot 82$ | $62 \cdot 66$ | 62.49 |
| 67 | $6+17$ | 64.00 | $63 \cdot 84$ | $63 \cdot 67$ | 63.50 |
| 68 | $65 \cdot 19$ | $65 \cdot 03$ | 64.86 | 64.70 | 64.53 |
| 69 | $66 \cdot 22$ | $66 \cdot 05$ | $65 \cdot 89$ | $65 \cdot 72$ | 65.55 |
| 70 | $67 \cdot 22$ | 67.06 | $66 \cdot 89$ | $66 \cdot 73$ | $66 \cdot 56$ |
| 71 | $68 \cdot 24$ | 68.08 | 67.91 | $67 \cdot 75$ | $67 \cdot 58$ |
| 72 | $69 \cdot 27$ | $69 \cdot 10$ | $68 \cdot 94$ | 68.77 | $68 \cdot 61$ |
| 73 | 70.29 | $70 \cdot 13$ | 69.96 | 69.80 | 69.64 |
| 74 | 71.31 | $71 \cdot 15$ | $70 \cdot 98$ | $70 \cdot 82$ | $70 \cdot 66$ |
| 75 | 72.33 | $72 \cdot 17$ | $72 \cdot 00$ | $71 \cdot 84$ | 71.68 |

$76^{\circ}-80^{\circ}$
TRUE PER CENT.

| ํํํ | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $73 \cdot 35$ | 73.19 | 73.04 | 72.88 | 7272 |
| 77 | 74:37 | 74.21 | 74.06 | 73.90 | $73 \cdot 74$ |
| 78 | 75:41 | 75.26 | $75 \cdot 10$ | 74.95 | 74.79 |
| 79 | $76 \cdot 42$ | $76 \cdot 27$ | $76 \cdot 11$ | 75.96 |  |
| 80 | $77 \cdot 45$ | 77.30 | 77-14 | $76 \cdot 99$ | 76.84 |
| 81 | 78.48 | 78.33 | $78 \cdot 18$ | 78.03 | 88 |
| 82 | 79.50 | 79.35 | 79:20 | 79.05 | $78 \cdot 90$ |
| 83 | $80 \cdot 53$ | ${ }^{80}{ }^{\text {3 }} 8$ | $80 \cdot 24$ 8 8 | $80 \cdot 9$ | 79.94 |
| 84 8 | 81.56 82.61 | 81.42 82.47 | $81 \cdot 27$ $82 \cdot 33$ | $81 \cdot 13$ $82 \cdot 19$ |  |
| 85 | $82 \cdot 61$ 83.67 | 82.47 83.53 | $82 \cdot 33$ 8.38 | $82 \cdot 19$ $83 \cdot 24$ | $82 \cdot 05$ $83 \cdot 10$ |
| 87 | 84.69 | 84.56 | ${ }^{8} 4 \cdot 42$ | 84.29 | 84.15 |
| 88 | 85.75 | 85.61 | 85.48 | 85.34 | 85.21 |
| 89 | 86.81 | 86.68 | $86 \cdot 54$ | $86 \cdot 41$ | 86.28 |
| 90 | 87.84 | $87 \cdot 70$ | 87.57 | 87.43 | 87.30 |
| 91 | 88.97 | 88.85 | 88.73 | 88.61 | $88 \cdot 37$ |
| 92 | 89.95 | 89.83 | 89.72 | 89.60 | 89.48 |
| 93 | 91.07 | 90.96 | 90.84 | $90 \cdot 73$ | 90.61 |
| 94 | $9^{2 \cdot 13}$ | 92.02 | 91-90 | $91 \cdot 79$ | 91.68 |
| 95 | 93-19 | 93.08 | 92-97 | 92.8 | 92.75 |
| 96 | 94.25 | 94.14 | 94.04 | 93.93 | 93.83 |
| 97 | 95.30 | 95-19 | 95.09 | 94.98 | 94.88 |
| 98 | $96 \cdot 34$ | 96-24 | $96 \cdot 14$ | $96 \cdot 04$ | 95.94 |
| 99 | 97.39 | 97.29 | 97.20 | 97'10 | 97 |
| 100 | 98.45 | 98.35 | 98.26 | 98.16 | 98. |

$$
81^{\circ}-85^{\circ}
$$

TRUE PER CENT.

|  | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.38 | 0.36 | $0 \cdot 35$ | 0.33 | $0 \cdot 32$ |
| 2 | 1-08 | 1.05 | 1.03 | 1.00 | 0.97 |
| 3 | 1.91 | 1.87 | I.82 | 1.78 | 1.73 |
| 4 | $2 \cdot 75$ | 2.69 | $2 \cdot 64$ | $2 \cdot 58$ | 2.52 |
| 5 | $3 \cdot 59$ | $3 \cdot 52$ | $3 \cdot 46$ | $3 \cdot 39$ | $3 \cdot 33$ |
| 6 | 4.47 | $4 \cdot 40$ | $4 \cdot 32$ | $4 \cdot 25$ | $4 \cdot 18$ |
| 7 | $5 \cdot 37$ | $5 \cdot 29$ | $5 \cdot 22$ | $5 \cdot 14$ | $5 \cdot 06$ |
| 8 | $6 \cdot 29$ | $6 \cdot 20$ | $6 \cdot 10$ | $6 \cdot 01$ | $5 \cdot 92$ |
| 9 | $7 \cdot 12$ | 7.03 | $6 \cdot 93$ | $6 \cdot 84$ | $6 \cdot 74$ |
| 10 | $7 \cdot 96$ | $7 \cdot 87$ | $7 \cdot 77$ | $7 \cdot 68$ | 7.58 |
| 11 | $8 \cdot 86$ | $8 \cdot 76$ | $8 \cdot 65$ | $8 \cdot 55$ | 8.44 |
| 12 | $9 \cdot 74$ | $9 \cdot 62$ | 9.51 | $9 \cdot 39$ | $9 \cdot 28$ |
| 13 | 10.59 | 10.47 | $10 \cdot 35$ | 10.23 | 10.11 |
| 14 | I I.44 | I I. 3 I | I I 19 | 11.06 | 10.93 |
| 15 | $12 \cdot 30$ | $12 \cdot 17$ | 12.03 | 11.90 | $11 \cdot 77$ |
| 16 | 1 $3 \cdot 16$ | 13.03 | 12.89 | 12.76 | 12.62 |
| 17 | 14.03 | 13.89 | 13.75 | 13.61 | 13.47 |
| 18 | 14.90 | 14.76 | 14.61 | 14.47 | 14.33 |
| 19 | $15 \cdot 73$ | $15 \cdot 58$ | $15 \cdot 42$ | 15.27 | $15 \cdot 12$ |
| 20 | 16.53 | $16 \cdot 38$ | 16.22 | 16.07 | 15.91 |
| 21 | 17.35 | $17 \cdot 19$ | 17.03 | 16.87 | 16.71 |
| 22 | $18 \cdot 20$ | 18.03 | 17.87 | 17.70 | 17.53 |
| 23 | 19.14 | $18 \cdot 98$ | 18.81 | 18.65 | 18.48 |
| 24 | 20.11 | 19.94 | 19.78 | 19.61 | 19.45 |
| 25 | 21.09 | 20.93 | $20 \cdot 76$ | $20 \cdot 60$ | 20.43 |

$81^{\circ}-85^{\circ}$
TRUE PER CENT.

|  | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 22.02 | 21.86 | 21.69 | 2153 | 21•36 |
| 27 | 22.97 | $22 \cdot 80$ | $22 \cdot 64$ | 22.47 | $22 \cdot 31$ |
| 28 | 23.94 | 23.78 | $23 \cdot 61$ | 23.45 | 23.28 |
| 29 | 24.90 | 24.74 | 24.57 | 24.41 | 2.24 |
| 30 | 25.89 | 25.72 | 25.56 | $25 \cdot 39$ | 25.22 |
| 31 | 26.88 | $26 \cdot 72$ | 26.55 | $26 \cdot 39$ | $26 \cdot 22$ |
| 32 | 27.86 | 27.69 | 27.53 | 27.36 |  |
| 33 | 28.85 | 28.68 | 28.52 | $28 \cdot 35$ | 18 |
| 34 | 29.84 | 29.67 | 29.49 | 29.32 | 29.15 |
| 35 | $30 \cdot 82$ | $30 \cdot 65$ | $30 \cdot 48$ | 30.31 | 30.14 |
| 36 | $3 \mathrm{I} \cdot 8 \mathrm{I}$ | 31.64 | 31.47 | 31.30 | 3113 |
| 37 | $32 \cdot 78$ | $32 \cdot 61$ | $32 \cdot 44$ | $32 \cdot 27$ | $32 \cdot 10$ |
| 38 | 33.77 | 33.59 | 33.42 | $33 \cdot 24$ | 33.07 |
| 39 | $34 \cdot 82$ | $34 \cdot 64$ | 34.47 | 34.29 | $34^{12}$ |
| 40 | 35.87 | $35 \cdot 70$ | $35 \cdot 52$ | $35 \cdot 35$ | $35 \cdot 18$ |
| 41 | ${ }^{6} 6.87$ | $36 \cdot 69$ | $36 \cdot 52$ | $36 \cdot 34$ | $36 \cdot 17$ |
| 42 | 37.87 | 37.70 | $37 \cdot 52$ | $37 \cdot 35$ | 37.18 |
| 43 | $38 \cdot 87$ | $38 \cdot 70$ | $38 \cdot 52$ | $38 \cdot 35$ | $38 \cdot 18$ |
| 44 | 39.88 | 39.71 | 39.53 | $39 \cdot 36$ | $39 \cdot 18$ |
| 45 | $40 \cdot 92$ | $40 \cdot 75$ | $40 \cdot 57$ | $40 \cdot 40$ | $40 \cdot 23$ |
| 46 | 41994 | $41 \cdot 77$ | 41.59 | $41 \cdot 42$ | $41 \cdot 25$ |
| 47 | 42.96 | $42 \cdot 79$ | $42 \cdot 62$ | $42 \cdot 45$ | $42 \cdot 28$ |
| 48 | 43.98 | $43 \cdot 81$ | $43 \cdot 64$ | 43.47 | $43 \cdot 30$ |
| 49 | 45.01 | $44 \cdot 84$ | $44 \cdot 67$ | $44 \cdot 50$ | $44 \cdot 33$ |
| 50 | $46 \cdot 03$ | $45 \cdot 86$ | $45 \cdot 70$ | $45 \cdot 53$ | $45 \cdot 36$ |

$81^{\circ}-85^{\circ}$
TRUE PER CENT.

| 害 | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 47.08 | $46 \cdot 91$ | $46 \cdot 73$ | $46 \cdot 56$ | $46 \cdot 39$ |
| 52 | $48 \cdot 08$ | 47.90 | $47 \cdot 73$ | $47 \cdot 55$ | $47 \cdot 38$ |
| 53 | 49.08 | $48 \cdot 91$ | $48 \cdot 73$ | $48 \cdot 56$ | $48 \cdot 39$ |
| 54 | 50.08 | 49.91 | $49 \cdot 73$ | $49 \cdot 56$ | $49 \cdot 39$ |
| 55 | 51.09 | $50 \cdot 92$ | $50 \cdot 75$ | 50.58 | 50.41 |
| 56 | 52.13 | 51.96 | $51 \cdot 78$ | $51 \cdot 61$ | 51.44 |
| 57 | $53 \cdot 15$ | $52 \cdot 98$ | $52 \cdot 81$ | $52 \cdot 64$ | 52.47 |
| 58 | $54 \cdot 17$ | 54.00 | $53 \cdot 831$ | $53 \cdot 66$ | 53.49 |
| 59 | $55 \cdot 18$ | 55.01 | 54.84 | 54.67 | 54.50 |
| 60 | $56 \cdot 20$ | 56.02 | $55 \cdot 85$ | $55 \cdot 67$ | 55.50 |
| 61 | $57 \cdot 18$ | 57.01 | $56 \cdot 85$ | $56 \cdot 68$ | 56.51 |
| 62 | $58 \cdot 20$ | 58.03 | $57 \cdot 86$ | $57 \cdot 69$ | 57.52 |
| 63 | 59.23 | 59.07 | $58 \cdot 90$ | $58 \cdot 74$ | $58 \cdot 57$ |
| 64 | $60 \cdot 27$ | $60 \cdot 10$ | 59.94 | 59.77 | $59 \cdot 60$ |
| 65 | $61 \cdot 3 \mathrm{I}$ | $61 \cdot 14$ | 60.98 | 60.81 | 60.65 |
| 66 | $62 \cdot 33$ | $62 \cdot 16$ | 62.00 | $61 \cdot 83$ | $61 \cdot 67$ |
| 67 | $63 \cdot 34$ | $63 \cdot 18$ | 63.01 | $62 \cdot 85$ | 62.69 |
| 68 | $64 \cdot 36$ | $64 \cdot 20$ | 64.03 | $63 \cdot 87$ | 63.70 |
| 69 | $65 \cdot 38$ | $65 \cdot 22$ | 65.05 | 64.89 | $6+7{ }^{+}$ |
| 70 | $66 \cdot 40$ | $66 \cdot 24$ | $66 \cdot 07$ | $65 \% 91$ | $65 \cdot 75$ |
| 71 | $67 \cdot 4^{2}$ | $67 \cdot 26$ | $67 \cdot 10$ | $66 \cdot 94$ | $66 \cdot 78$ |
| 72 | $68 \cdot 45$ | $68 \cdot 29$ | $68 \cdot 13$ | 67.97 | 67.81 |
| 73 | $69 \cdot 48$ | $69 \cdot 32$ | $69 \cdot 16$ | 69.00 | $68 \cdot 8.4$ |
| 74 | 70.50 | $70 \cdot 34$ | $70 \cdot 19$ | 70.03 | 69.87 |
| 75 | 7153 | 7137. | $71 \cdot 22$ | 71.06 | 70.91 |

$81^{\circ}-85^{\circ}$
TRUE PER CENT.

| $\\|$ | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $72 \cdot 57$ | 72.41 | $72 \cdot 26$ | $72 \cdot 10$ | 71.95 |
| 77 | 73.59 | 73.44 | $73 \cdot 28$ | $73 \cdot 13$ | 72.98 |
| 78 | 74.64 | 74.48 | $74 \cdot 33$ | $74 \cdot 17$ | 74.02 |
| 79 | $75 \cdot 65$ | $75 \cdot 50$ | $75 \cdot 35$ | $75 \cdot 20$ | 75.05 |
| 80 | $76 \cdot 69$ | $76 \cdot 54$ | $76 \cdot 38$ | $76 \cdot 23$ | $76 \cdot 08$ |
| 81 | $77 \cdot 73$ | 77.58 | 77.42 | $77 \cdot 27$ | 77-12 |
| 82 | 78.75 | 78.60 | $78 \cdot 46$ | $78 \cdot 31$ | $78 \cdot 16$ |
| 83 | 79.80 | $79 \cdot 66$ | 79.51 | $79 \cdot 37$ | 79.23 |
| 84 | 80.85 | 80.71 | 80.58 | $80 \cdot 44$ | $80 \cdot 30$ |
| 85 | 81.91 | 81.77 | $81 \cdot 62$ | 8I.48 | 8I•34 |
| 86 | $82 \cdot 96$ | $82 \cdot 83$ | $82 \cdot 69$ | $82 \cdot 56$ | 82.42 |
| 87 | 84.02 | $83 \cdot 89$ | 83.75 | 83.62 | 83.49 |
| 88 | 85.08 | 84.95 | 84.81 | 84.68 | 84.55 |
| 89 | $86 \cdot 15$ | $86 \cdot 01$ | 85.88 | $85 \cdot 74$ | 85.61 |
| 90 | $87 \cdot 18$ | 87.05 | 86.93 | $86 \cdot 80$ | 86.68 |
| 91 | $88 \cdot 25$ | 88.13 | 88.02 | 87.90 | $87 \cdot 78$ |
| 92 | 89•36 | $89 \cdot 25$ | $89 \cdot 13$ | 89.02 | 88.90 |
| 93 | $90 \cdot 50$ | 90.38 | $90 \cdot 27$ | $90 \cdot 15$ | 90.04 |
| 94 | 91.57 | 91.46 | 91.35 | 91.24 | 9I•13 |
| 95 | $92 \cdot 64$ | $92 \cdot 53$ | $92 \cdot 42$ | $92 \cdot 31$ | 92.20 |
| 96 | 93.72 | 93.61 | 93.51 | 93.41 | $93 \cdot 29$ |
| 97 | 94.78 | 94.68 | $9+57$ | 94.47 | 94.37 |
| 98 | $95 \cdot 84$ | $95 \cdot 74$ | $95 \cdot 64$ | 95.54 | 95.44 |
| 99 | $96 \cdot 90$ | $96 \cdot 81$ | $96 \cdot 71$ | $96 \cdot 62$ | $96 \cdot 52$ |
| 100 | 97*97 | $97 \cdot 89$ | $97 \cdot 79$ | 97.70 | $97 \cdot 61$ |

$$
86^{\circ}-90^{\circ}
$$

TRUE PER CENT.

|  | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.31 | $0 \cdot 30$ | 0.28 | - 0.27 | 0.26 |
| 2 | -0.94 | 0.91 | $0 \cdot 89$ | 0.86 | 0.83 |
| 3 | 1.69 | 1.65 | 1.61 | 1.57 | 1. 53 |
| 4 | 2.47 | 2.42 | $2 \cdot 36$ | $2 \cdot 31$ | 2.26 |
| 5 | $3 \cdot 27$ | $3 \cdot 21$ | 3.14 | 3.08 | 3.02 |
| 6 | $4{ }^{1} 1$ | 4.04 | $3 \cdot 98$ | 3.91 | $3 \cdot 84$ |
| 7 | $4 \cdot 98$ | 4.90 | $4 \cdot 83$ | 4.75 | 4.67 |
| 8 | $5 \cdot 83$ | $5 \cdot 74$ | $5 \cdot 66$ | $5 \cdot 57$ | $5 \cdot 48$ |
| 9 | $6 \cdot 65$ | $6 \cdot 56$ | 6.47 | $6 \cdot 38$ | $6 \cdot 29$ |
| 10 | $7 \cdot 48$ | $7 \cdot 38$ | $7 \cdot 29$ | $7 \cdot 19$ | 7.09 |
| 11 | $8 \cdot 33$ | $8 \cdot 23$ | $8 \cdot 12$ | $8 \cdot 02$ | 7.91 |
| 12 | 9.17 | 9.05 | $8 \cdot 94$ | $8 \cdot 82$ | $8 \cdot 71$ |
| 13 | 9.99 | 9.87 | $9 \cdot 76$ | $9 \cdot 64$ | 9.52 |
| 14 | 10.79 | 10.65 | 10.50 | $10 \cdot 36$ | 10.22 |
| 15 | 11.64 | 11.52 | II.39 | 11.27 | $1 \cdot 14$ |
| 16 | 12.49 | 12.36 | 12.23 | 12.10 | 11.97 |
| 17 | 13.33 | 13.20 | 13.06 | 12.93 | 12.79 |
| 18 | 14.19 | 14.05 | 13.90 | 13.76 | 13.62 |
| 19 | 14.97 | 14.83 | 14.68 | 14.54 | 14.39 |
| 20 | $15 \cdot 76$ | 15.61 | 15.46 | 15.31 | $15 \cdot 16$ |
| 21 | 16.56 | 16.40 | 16.25 | 16.09 | 15.94 |
| 22 | $17 \cdot 38$ | -17.22 | 17.07 | 16.91 | 16.76 |
| 23 | 18.33 | $18 \cdot 17$ | 18.02 | 17.86 | 17.71 |
| 24 | 19.29 | 19.14 | $18 \cdot 98$ | 18.83 | 18.67 |
| 25 | $20 \cdot 28$ | 20.13 | 19.97 | 19.82 | 19.67 |

$86^{\circ}-90^{\circ}$
TRUE PER CENT.

| 寿 | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 2I.2I | $2 \mathrm{I} \cdot 06$ | 20.90 | 20.75 | 20.60 |
| 27 | 22.16 | 22.00 | 21.85 | $2 \mathrm{I} \cdot 69$ | $2 \mathrm{I} \cdot 54$ |
| 28 | 23.12 | 22.97 | 22.81 | $22 \cdot 66$ | 22.50 |
| 29 | 24.08 | 23.93 | 23.77 | $23 \cdot 62$ | 23.46 |
| 30 | 25.07 | 24.91 | 24.76 | $24 \cdot 60$ | 24.45 |
| 31 | 26.06 | 25.91 | 25.75 | $25 \cdot 60$ | 25.44 |
| 32 | 27.03 | $26 \cdot 88$ | $26 \cdot 72$ | $26 \cdot 57$ | 26.41 |
| 33 | 28.02 | 27.86 | 27.69 | 27.53 | $27 \cdot 37$ |
| 34 | 28.99 | 28.83 | $28 \cdot 67$ | 28.51 | $28 \cdot 35$ |
| 35 | 29.98 | 29.82 | 29.66 | 29.50 | 29.34 |
| 36 | 30.97 | $30 \cdot 81$ | $30 \cdot 65$ | 30*49 | 30.33 |
| 37 | 31.94 | 31.77 | $3 \mathrm{I} \cdot 61$ | 31.44 | 31.28 |
| 38 | 32.91 | $32 \cdot 75$ | 32.58 | $32 \cdot 42$ | $32 \cdot 26$ |
| 39 | 33.96 | 33.79 | 33.63 | 33.46 | $33 \cdot 30$ |
| 40 | 35.02 | 34.85 | $34 \cdot 69$ | 34.52 | $34 \cdot 36$ |
| 41 | 36.01 | 35.85 | $35 \cdot 69$ | 35.53 | $35 \cdot 37$ |
| 42 | 37.02 | $36 \cdot 85$ | $36 \cdot 69$ | $36 \cdot 52$ | $36 \cdot 36$ |
| 43 | 38.01 | 37.85 | $37 \cdot 68$ | $37 \cdot 52$ | $37 \cdot 35$ |
| 44 | 39.01 | 38.85 | $38 \cdot 68$ | $38 \cdot 52$ | $38 \cdot 35$ |
| 45 | 40.06 | 39.90 | $39 \cdot 73$ | 39.57 | 39.40 |
| 46 | 41.09 | $40 \cdot 92$ | $40 \cdot 76$ | 40.59 | $40 \cdot 43$ |
| 47 | $42 \cdot 11$ | 41.95 | $41 \cdot 78$ | $41 \cdot 62$ | 41.45 |
| 48 | $43 \cdot 13$ | $42 \cdot 97$ | $42 \cdot 80$ | $42 \cdot 64$ | 42.47 |
| 49 | $44 \cdot 16$ | 44.00 | $43 \cdot 83$ | $43 \cdot 67$ | $43 \cdot 50$ |
| 50 | $45 \cdot 19$ | $45^{\circ} 02$ | $44 \cdot 86$ | $44 \cdot 69$ | 44.52 |

$$
86^{\circ}-90^{\circ}
$$

true per cent.

| 学家 | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $46 \cdot 22$ | $46 \cdot 0$ | 45.89 | $45 \cdot 73$ |  |
| 52 | 47.21 | 47.05 | $46 \cdot 88$ | $46 \cdot 72$ |  |
| 53 | 48.22 | 48.06 | $47 \cdot 89$ | 47.73 | 47.56 |
| 54 | $49^{2} 3$ | 49.06 | 48.90 | $48 \cdot 73$ |  |
| 55 | 50.24 | 50.08 | 49.91 | 49.75 |  |
| 56 | 51.27 | $51 \cdot 10$ | 50.94 | 50.77 | 50.60 |
| 57 | 52.31 | 52.14 | 51.98 | 51.81 | 51.65 |
| 58 | 53.32 | $53 \cdot 16$ | 52.99 | 52.83 | . 66 |
| 59 | 54.33 | $54 \cdot 1$ | 54.0 | 53.84 |  |
| 60 | 55.34 | 55 | $55^{\circ} \mathrm{O}$ | 85 |  |
| 61 | $56 \cdot 35$ | $56 \cdot 18$ | 56.02 |  |  |
| 62 | 57.36 | 57.20 | 57.0 | 56.87 | 56.71 |
| 63 | 58.41 | 58.24 |  | 57.91 | 57.75 |
| 64 | 59.44 | $59 \cdot 28$ | 59 | 58.97 |  |
| 65 | 60.49 | 6 |  |  | 59.86 |
| 66 | 61.51 | 61 | 6 | ${ }^{6}$ |  |
| 67 | 62.53 | $62 \cdot 36$ | $62 \cdot 20$ | 62.03 |  |
| 68 | 63.54 | $63 \cdot 38$ | 63.21 |  | $62 \cdot 89$ |
| 69 | 64.56 | 64.40 | 64.24 | 64.08 | 63.92 |
| 70 | 65.59 | $65 \cdot 43$ | $65 \cdot 27$ | $65 \cdot 11$ | 64.95 |
| 71 | $66 \cdot 62$ | $66 \cdot 47$ | $66 \cdot 31$ | $66 \cdot 16$ | 66.00 |
| 72 | $67 \cdot 65$ | 67.50 | 67.34 | $67 \cdot 19$ | 67.03 |
| 73 | $68 \cdot 69$ | 68.53 | 68.38 | 68.22 | 68.07 |
| 74 | 69.72 | 69 | 69.41 | $69 \cdot 26$ | $69 \cdot 11$ |
| 75 | 70.76 | $70 \cdot 61$ | $70 \cdot 45$ | $70 \cdot 30$ | $70 \cdot 15$ |

$86^{\circ}-90^{\circ}$
TRUE PER CENT.

|  | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 71.80 | $71 \cdot 65$ | 71.49 | 71.34 | 71.19 |
| 77 | $72 \cdot 83$ | $72 \cdot 68$ | 72.43 | 72.28 | 72.23 |
| 78 | $73 \cdot 87$ | $73 \cdot 72$ | 73.57 | 73.42 | 73.27 |
| 79 | 74.90 | $74 \cdot 75$ | 74.61 | 74.46 | 74.31 |
| 80 | 75.93 | $75 \cdot 79$ | $75 \cdot 64$ | $75 \cdot 50$ | $75 \cdot 35$ |
| 81 | $76 \cdot 98$ | 76.83 | $76 \cdot 69$ | 76.54 | $76 \cdot 40$ |
| 82 | $78 \cdot 02$ | $77 \cdot 88$ | $77 \cdot 75$ | $77 \cdot 61$ | $77 \cdot 47$ |
| 83 | 79.09 | $78 \cdot 96$ | $78 \cdot 82$ | $78 \cdot 69$ | 78.55 |
| 84 | $80 \cdot 16$ | 80.02 | 79.89 | 79.75 | 79.61 |
| 85 | 8I-2I | 81.07 | 80.94 | 80.80 | 80.67 |
| 86 | $82 \cdot 29$ | $82 \cdot 16$ | $82 \cdot 02$ | 81.89 | $81 \cdot 76$ |
| 87 | $83 \cdot 36$ | 83.23 | $83 \cdot 10$ | $82 \cdot 97$ | 82.84 |
| 88 | $84 \cdot 42$ | 84.29 | $84 \cdot 16$ | 84.03 | 83.90 |
| 89 | 85.48 | $85 \cdot 36$ | $85 \cdot 23$ | $85^{\circ} \mathrm{I}$ I | 84.98 |
| 90 | $86 \cdot 56$ | $86 \cdot 44$ | $86 \cdot 33$ | 86.21 | 86.09 |
| 91 | $87 \cdot 66$ |  | $87: 43$ | $87 \cdot 32$ |  |
| 92 | $88 \cdot 79$ | 88.67 | 88.56 | $88 \cdot 44$ | $88 \cdot 33$ |
| 93 | 89.93 | 89.82 | 89.71 | 89.60 | $89 \cdot 49$ |
| 94 | 91.02 | $90 \cdot 92$ | 90.81 | 90.71 | 90.60 |
| 95 | $92 \cdot 10$ | 92.00 | 91.89 | 91.79 | 91.69 |
| 96 | 93-19 | 93.09 | $92 \cdot 98$ | 92.88 | $92 \cdot 78$ |
| 97 | $94 \cdot 27$ | $94 \cdot 17$ | 94.07 | 93.97 | $93 \cdot 87$ |
| 98 | $95 \cdot 34$ | $95 \cdot 25$ | 95.15 | $95 \cdot 06$ | 94.96 |
| 99 | $96 \cdot 42$ | $96 \cdot 32$ | $96 \cdot 23$ | 96.13 | $96 \cdot 03$ |
| 100 | $97 \cdot 52$ | $97 \cdot 42$ | $97 \cdot 33$ | $97 \cdot 23$ | 97.14 |

$91^{\circ}-95^{\circ}$
TRUE PER CENT.

|  | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 |
| 2 | 0.81 | $0 \cdot 79$ | 0.76 | 0.74 | $0 \cdot 72$ |
| 3 | 1.49 | 1.45 | 1.42 | 1-38 | $1 \cdot 34$ |
| 4 | $2 \cdot 21$ | $2 \cdot 16$ | $2 \cdot 12$ | 2.07 | 2.02 |
| 5 | $2 \cdot 97$ | $2 \cdot 91$ | 2.86 | $2 \cdot 80$ | $2 \cdot 75$ |
| 6 | $3 \cdot 78$ | 371 | $3 \cdot 65$ | $3 \cdot 58$ | $3 \cdot 52$ |
| 7 | 4.59 | 4.51 | 4.44 | $4 \cdot 36$ | $4 \cdot 28$ |
| 8 | $5 \cdot 39$ | $5 \cdot 31$ | $5 \cdot 22$ | $5 \cdot 14$ | 5.05 |
| 9 | $6 \cdot 20$ | $6 \cdot 11$ | $6 \cdot 01$ | $5 \cdot 92$ | $5 \cdot 83$ |
| 10 | $6 \cdot 99$ | $6 \cdot 89$ | $6 \cdot 79$ | $6 \cdot 69$ | $6 \cdot 59$ |
| 11 | $7 \cdot 80$ | $7 \cdot 70$ | $7 \cdot 59$ | 7.50 | $7 \cdot 38$ |
| 12 | 8.60 | $8 \cdot 49$ | $8 \cdot 39$ | $8 \cdot 28$ | $8 \cdot 17$ |
| 13 | $9 \cdot 41$ | $9 \cdot 29$ | $9 \cdot 18$ | 9.06 | $8 \cdot 95$ |
| 14 | $10 \cdot 12$ | 10.02 | $9 \cdot 92$ | $9 \cdot 82$ | $9 \cdot 72$ |
| 15 | 11.02 | 10.89 | 10.77 | 10.64 | 10.52 |
| 16 | 11.84 | 11.71 | 1159 | 11.46 | 11.33 |
| 17 | 12.66 | 12.53 | 12.39 | 12.26 | 12.13 |
| 18 | 13.48 | 13.35 | 13.21 | 13.08 | 12.94 |
| 19 | 14.25 | 14.11 | 13.98 | 13.84 | 13.70 |
| 20 | 15.02 | 14.88 | 14.74 | 14.60 | 14.46 |
| 21 | 15.80 | 15.66 | 15.51 | $15 \cdot 37$ | 15.23 |
| 22 | 16.62 | $16 \cdot 47$ | $16 \cdot 33$ | 16.18 | 16.04 |
| 23 | 17.56 | 17.42 | 17.27 | $17 \cdot 13$ | $16 \cdot 98$ |
| 24 | 18.53 | 18.39 | $18 \cdot 24$ | $18 \cdot 10$ | 17.96 |
| 25 | 19.53 | $19 \cdot 38$ | 19.24 | 19.09 | 18.95 |

TRUE PER CENT.

$91^{\circ}-95^{\circ}$
TRUE PER CENT.

|  | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $45 \cdot 40$ | 45.24 | 45.08 | $44^{\prime} 9^{2}$ | 4476 |
| 52 | $46 \cdot 39$ | $46 \cdot 23$ | $46 \cdot 07$ | 45.91 | 45.75 |
| 53 | 47.40 | 47.24 | 47.09 | $46 \cdot 93$ | 46.77 |
| 54. | 48.41 | 48.25 | 48.09 | 47.93 | 4777 |
| 55. | $49 \cdot 4{ }^{2}$ | $49 \cdot 26$ | 49.09 | $48 \cdot 93$ | 48.77 |
| 56. | 50.44 | 50.28 | 50.11 | 49.95 | 49.79 |
| 57 | 51.49 | 51.33 | $51 \cdot 16$ | 51.00 |  |
| 58 | 52.50 | 52.34 | 52.18 | 52.02 |  |
| 59 | 53.51 | 53.35 54.37 | 53.20 54.21 | 53.04 54.05 | 52.88 <br> 53.89 |
| 61 | 55.53 | $55 \cdot 37$ | $55 \cdot 22$ | 55. | 54.90 |
| 62 | 56.55 | 56.39 | $55^{22}$ | 56.06 | 55.90 |
| 63 | 57.59 | 57.44 | 57.28 | $57 \cdot 13$ | 56.97 |
| 64. | $58 \cdot 65$ | 58.50 | 58.34 | 58-19 | 58.03 |
| 65 | 59.70 | 59.55 | 59.39 | 59.24 | 59.08 |
| 66 | $60 \cdot 71$ | 60.56 | 60.40 | $60 \cdot 25$ | 60.09 |
| 67 | 61.72 | 61.56 | 61.41 | 61.25 | $61 \cdot 10$ |
| 68 | $62 \cdot 74$ | $62 \cdot 58$ | 62.43 | $62 \cdot 27$ | $62 \cdot 12$ |
| 69 | 63.76 | 63.61 | 63.45 | 63.30 | $63 \cdot 14$ |
| 70 | 64.80 | $64 \cdot 64$ | 64.49 | 64.33 | $64 \cdot 18$ |
| 71 | 65.85 | 65.69 | 65.54 | $65 \cdot 38$ | 65.23 |
| 72 | 66.88 | $66 \cdot 72$ | 66.57 | 66.41 | 66.26 |
| 73 | 67.92 | 67.77 | 67.61 | 67.46 | 67.31 |
| 74 | 68.96 | 68.81 | 68.65 | 68.50 | 68.35 |
| 75 | 69.99 | $69 \cdot 85$ | 69.69 | 69.54 | 69.39 |

TRUE PER CENT.

| 害 | $91^{\circ}$ | $92^{\circ}$ | 93 | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 71 | 70.89 | $70 \cdot 75$ | 70.60 | 70:45 |
| 77 | 72.08 | 71.93 | $71 \cdot 79$ | $71 \cdot 64$ | 71.49 |
| 78 | $73 \cdot 12$ | $72: 98$ | 72.83 | $72 \cdot 69$ | $72 \cdot 54$ |
| 79 | $74 \cdot 17$ | $74 \cdot 02$ | 73.88 | 73.73 | 73.59 |
| 80 | $75 \cdot 21$ | $75 \cdot 06$ | 74.92 | 7477 | 74.63 |
| 81 | 76 | 76 | 75.99 | $75 \cdot 85$ | 75.71 |
| 82 | $77 \cdot 33$ | $77 \cdot 19$ | 77.06 | $76 \cdot 92$ |  |
| 83 | $78 \cdot 41$ | $78 \cdot 28$ | $78 \cdot 14$ | $78 \cdot 01$ |  |
| 84 | 79.48 | $79 \cdot 34$ | $79 \cdot 21$ | 79.07 | $78 \cdot 94$ |
| 85 | 80.54 | 80.41 | $80 \cdot 28$ | $80 \cdot 15$ | 80.02 |
| 86 | $8 \mathrm{I} \cdot 63$ | 81.50 | $8 \mathrm{I} \cdot 37$ | $81 \cdot 24$ | 81.11 |
| 87 | $82 \cdot 71$ | $82 \cdot 58$ | 82.45 | $82 \cdot 32$ | $82 \cdot 19$ |
| 88 | 83.77 | $83 \cdot 64$ | 83.51 | $83 \cdot 38$ | $83 \cdot 25$ |
| 89 | 84.86 |  | $84 \cdot 63$ | 84.51 | 84.39 |
| 90 | 85.98 | $85 \cdot 86$ | $85 \cdot 75$ | $85 \cdot 63$ | 85.52 |
| 91 | 87.07 | $86 \cdot 98$ | $86 \cdot 86$ | $86 \cdot 75$ |  |
| 92 | 88.22 | 88-11 | 88.01 | . 87.90 | 87.79 |
| 93 | $89 \cdot 38$ | 89.27 | $89 \cdot 17$ | -89.06 | 88.95 |
| 94 | $90 \cdot 49$ | 90.38 | 90.28 | $90 \cdot 17$ | 90.06 |
| 95 | 91.59 | 91.48 | 91.38 | 91.27 | 91.17 |
| 96 | $92 \cdot 68$ | 92.58 | $92 \cdot 48$ | $92 \cdot 38$ | 92.28 |
| 97 | 93.77 | $93 \cdot 68$ | 93.58 | 93.49 | 93.39 |
| 98 | 94.87 | 94.77 | 94.68 | 94.58 | 94.49 |
| 99 | $95 \cdot 94$ | $95 \cdot 85$ | $95 \cdot 77$ | $95 \cdot 68$ | $95 \cdot 59$ |
| 100 | 97.05 | $96 \cdot 96$ | 96.87 | $96 \cdot 78$ | 96:69 |

$96^{\circ}-100^{\circ}$
TRUE PER CENT.

| 家 | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.21 | 0.21 | 0.20 | $0 \cdot 20$ | $0 \cdot 19$ |
| 2 | $0 \cdot 70$ | 0.68 | 0.66 | 0.64 | 0.62 |
| 3 | I•3I | I-28 | 1.24 | I. 21 | I. 18 |
| 4 | 1.98 | 1.94 | 1-90 | I.86 | 1.82 |
| 5 | $2 \cdot 70$ | $2 \cdot 65$ | $2 \cdot 59$ | $2 \cdot 54$ | 2.49 |
| 6 | 3.45 | $3 \cdot 39$ | 332 | 3.26 | 3.19 |
| 7 | 4.21 | 4.14 | 4.06 | 3.99 | $3 \cdot 92$ |
| 8 | 4.97 | 490 | $4 \cdot 82$ | 4.75 | $4 \cdot 67$ |
| 9 | $5 \cdot 74$ | $5 \cdot 66$ | 557 | $5 \cdot 49$ | $5 \cdot 40$ |
| 10 | $6 \cdot 50$ | 6.41 | $6 \cdot 31$ | $6 \cdot 22$ | $6 \cdot 13$ |
| 11 | $7 \cdot 28$ | $7 \cdot 18$ | 7.09 | $6 \cdot 99$ | $6 \cdot 89$ |
| 12 | $8 \cdot 06$ | $7 \cdot 96$ | $7 \cdot 85$ | $7 \cdot 75$ | $7 \cdot 64$ |
| 13 | 8.84 | $8 \cdot 73$ | $8 \cdot 63$ | $8 \cdot 52$ | $8 \cdot 41$ |
| 14 | $9 \cdot 61$ | 9.50 | $9 \cdot 38$ | $9 \cdot 27$ | $9 \cdot 16$ |
| 15 | 10.40 | 10.29 | $10 \cdot 17$ | 10.06 | $9 \cdot 94$ |
| 16 | I 1-21 | I 1.08 | 10.96 | 10.83 | 10.71 |
| 17 | 12.00 | 11.88 | 11.75 | 11.63 | 11.50 |
| 18 | 12.81 | 12.69 | 12.56 | 12.44 | 12.31 |
| 19 | 13.57 | 13.44 | 13.32 | $13 \cdot 19$ | 13.06 |
| 20 | 14.33 | 14.20 | 14.06 | 13.93 | 13.80 |
| 21 | 15.10 | 14.96 | 14.83 | 14.69 | 14.56 |
| 22 | 15.91 | 15.77 | 15.64 | 15.50 | 15.37 |
| 23 | 16.85 | $16 \cdot 72$ | 16.58 | 16.45 | 16.32 |
| 24 | 17.83 | 17.69 | 17.56 | $17.42$ | 17.29 |
| 25 | 18.82 | 18.68 | 18.55 | 18.41 | 18.28 |

$96^{\circ}-100^{\circ}$
TRUE PER CENT.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 19.75 | 19.62 | 19.48 | 19.35 | 19.22 |
| 27 | 20.68 | 20.55 | 20.41 | $20 \cdot 28$ | 20.14 |
| 28 | 21.64 | 21.51 | 21.37 | 21.24 | 21.10 |
| 29 | $22 \cdot 61$ | 22.47 | $22 \cdot 34$ | 22.20 | 22.06 |
| 30 | 23.58 | 23.44 | 23.31 | $23 \cdot 17$ | 23.03 |
| 31 | 24.57 | 24.43 | 24.28 | $24^{1} 14$ | 24.00 |
| 32 | $25^{\circ} 51$ | $25 \cdot 37$ | $25 \cdot 24$ | $25 \cdot 10$ | 24.96 |
| 33 | $26 \cdot 49$ | $26 \cdot 35$ | $26 \cdot 21$ | $26 \cdot 07$ | 25.93 |
| 34 | 27.47 | $27 \cdot 33$ | $27 \cdot 19$ | 27.05 | 26.91 |
| 35 | $28 \cdot 44$ | $28 \cdot 30$ | 28.15 | 28.01 | 27.87 |
| 36 | 29.42 | $29 \cdot 28$ | $29 \cdot 13$ | 28.99 | 28.84 |
| 37 | $30 \cdot 37$ | 30.22 | 30.08 | 29.93 | 29.78 |
| 38 | $31 \cdot 32$ | $31 \cdot 17$ | 31.03 | 30.88 | $30 \cdot 73$ |
| 39 | $32 \cdot 37$ | $32 \cdot 23$ | $32 \cdot 08$ | 31.94 | 31.79 |
| 40 | 33.44 | 33.29 | $33 \cdot 15$ | $33 \cdot 00$ | 32.85 |
| 41 | 34.44 | 34.29 | $34^{1} 14$ | 33*99 | 33.84 |
| 42 | $35 \cdot 42$ | $35 \cdot 27$ | $35 \cdot 12$ | 34.97 | 34.82 |
| 43 | $36 \cdot 40$ | $36 \cdot 25$ | $36 \cdot 10$ | 35.95 | 35.80 |
| 44 | 37.40 | $37 \cdot 25$ | $37 \cdot 11$ | $36 \cdot 96$ | 36.81 |
| 45 | $38 \cdot 47$ | $3^{8 \cdot} 3^{2}$ | $38 \cdot 16$ | $38 \cdot 01$ | 37.86 |
| 46 | $39 \cdot 49$ | $39 * 34$ | 39•18 | $39^{\circ} 03$ | 38.88 |
| 47 | $40 \cdot 50$ | $40 \cdot 35$ | $40 \cdot 19$ | $40 \cdot 04$ | $39 \cdot 89$ |
| 48 | 41.53 | $41 \cdot 3^{8}$ | $41 \cdot 22$ | 41.07 | $40 \cdot 92$ |
| 49 | $42 \cdot 55$ | $42 \cdot 39$ | $42 \cdot 24$ | $42 \cdot 08$ | $41 \cdot 93$ |
| 50 | $43 \cdot 58$ | $43 \cdot{ }^{2}$ | $43 \cdot 27$ | $43 \cdot 11$ | $42 \cdot 96$ |

$96^{\circ}-100^{\circ}$
TRUE PER CENT.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 44.61 | 44.46 | 44.30 | 44.15 | 44.00 |
| 52 | $45 \cdot 60$ | 45.44 | $45 \cdot 29$ | $45 \cdot 13$ | 44.98 |
| 53 | $46 \cdot 62$ | $46 \cdot 46$ | $46 \cdot 31$ | $46 \cdot 15$ | $46 \cdot 00$ |
| 54 | $47 \cdot 61$ | $47 \cdot 45$ | 47.30 | $47 \cdot 14$ | $46 \cdot 98$ |
| 55 | $48 \cdot 61$ | $48 \cdot 45$ | 48:30 | $48 \cdot 14$ | $47 \cdot 98$ |
| 56 | $49 \cdot 63$ | $49 \cdot 48$ | $49 \cdot 32$ | $49^{117}$ | 49.01 |
| 57 | $50 \cdot 68$ | 50.52 | $50 \cdot 37$ | 50.21 | 50.05 |
| 58 | 51.71 | 51.56 | 51.42 | 51.27 | 51.12 |
| 59 | $52 \cdot 72$ | 52.56 | 52.41 | 52.25 | 52.09 |
| 60 | 53.73 | 53.58 | 53.42 | 53.27 | $53 \cdot 11$ |
| 61 | 54.74 | 54.59 | 54.43 | 54.28 | 54.12 |
| 62 | 55.75 | 55.59 | 55.44 | $55 \cdot 28$ | $55 \cdot 13$ |
| 63 | $56 \cdot 82$ | 56.67 | 56.51 | $56 \cdot 36$ | $56 \cdot 21$ |
| 64 | 57.88 | 57.73 | 57.57 | 57.42 | $57 \cdot 27$ |
| 65 | $58 \cdot 93$ | $58 \cdot 78$ | $58 \cdot 62$ | $58 \cdot 47$ | $58 \cdot 3^{2}$ |
| 66 | $59 * 94$ | 59.78 | 59.63 | 59.47 | $59 \cdot 32$ |
| 67 | 60.95 | $60 \cdot 80$ | $60 \cdot 64$ | 60.49 | $60 \cdot 34$ |
| 68 | 6I.97 | $6 \mathrm{I} \cdot 8 \mathrm{I}$ | 6I.66 | 61.50 | $6 \mathrm{I} \cdot 35$ |
| 69 | $62 \cdot 99$ | $62 \cdot 84$ | 62.68 | 62.53 | $62 \cdot 38$ |
| 70 | 64.03 | $63 \cdot 88$ | $63 \cdot 72$ | 63.57 | $63 \cdot 42$ |
| 71 | $65 \cdot 08$ | 64.93 | 64.77 | 64.62 | 64.47 |
| 72 | $66 \cdot 11$ | $65 \cdot 96$ | $65 \cdot 82$ | $65 \cdot 67$ | $65 \cdot 52$ |
| 73 | $67 \cdot 16$ | $67 \cdot 01$ | $66 \cdot 87$ | $66 \cdot 72$ | $66 \cdot 57$ |
| 74 | $68 \cdot 20$ | $68 \cdot 05$ | 67.91 | 67.76 | $67 \cdot 6 \mathrm{I}$ |
| 75 | $69 \cdot 25$ | $69 \cdot 10$ | $68 \cdot 96$ | $68 \cdot 8 \mathrm{I}$ | 68.67 |

TRUE PER CENT.

| $\mid$ | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $70 \cdot 30$ | $70 \cdot 16$ | 70.01 | $69 \cdot 87$ | 69.72 |
| 77 | 71.35 | 71.20 | 71.06 | 70.91 | 70.77 |
| 78 | 72.40 | 72.26 | $72 \cdot 11$ | 71*97 | 71.83 |
| 79 | 73.45 | 73.30 | $73 \cdot 16$ | 73.01 | 72.87 |
| 80 | $74 \cdot 49$ | $74 \cdot 35$ | $74^{22}$ | 74.08 | 73.94 |
| 81 | 75.57 | 75.44 | $75 \cdot 30$ | 75.17 | 75.03 |
| 82 | $76 \cdot 65$ | 76.51 | $76 \cdot 38$ | $76 \cdot 24$ | 76.11 |
| 83 | 77.74 | 77.61 | 77.47 | $77 \cdot 34$ | 77.21 |
| 84 | $78 \cdot 81$ | $78 \cdot 68$ | $78 \cdot 56$ | $78 \cdot 43$ | $78 \cdot 30$ |
| 85 | 79.89 | 79.77 | $79 \cdot 64$ | 79.52 | $79 \cdot 39$ |
| 86 | 80.98 | 80.86 | 80.73 | 80.61 | 80.48 |
| 87 | 82.06 | 81.93 | 8I.8r | 81.68 | 81.55 |
| 88 | $83 \cdot 13$ | 83.01 | $82 \cdot 90$ | $82 \cdot 78$ | 82.66 |
| 89 | $84 \cdot 28$ | $84 \cdot 16$ | 84.05 | 83.93 | 83.82 |
| 90 | 85.41 | 85.30 | 85.18 | 85.07 | 84.96 |
| 91 | $86 \cdot 53$ | 86.42 | $86 \cdot 31$ | 86.20 | 86.09 |
| 92 | 87.68 | 87.57 | 87.47 | $87 \cdot 36$ | $87 \cdot 25$ |
| 93 | 88.84 | 88.74 | 88.63 | 88.53 | 88.42 |
| 94 | 89.96 | 89.85 | 89.75 | 89.64 | 89.54 |
| 95 | 91.07 | 90.97 | $90 \cdot 87$ | $90 \cdot 77$ | $90 \cdot 67$ |
| 96 | 92.18 | 92.08 | 91.99 | 91.89 | 91.79 |
| 97 | 93.29 | 93.20 | 93.10 | 93.01 | 92.91 |
| 98 | 94.40 | 94.3 I | 94.2 I | 94.12 | 94.03 |
| 99 | 95.50 | 95.41 | $95 \cdot 32$ | 95.23 | 95.14 |
| 100 | $96 \cdot 60$ | 96.51 | $96 \cdot 43$ | $96 \cdot 34$ | $96 \cdot 25$ |



Showing the volume which 1000 gallons of any spirituous liquor, measured at any temperature between $20^{\circ}$ and $100^{\circ}$ Fahr., and of which the true per cent. by volume is known, will occupy when brought to the standard temperature of $60^{\circ}$ Fahrcnheit.

## 


$21^{\circ}-25^{\circ}$

## VOLUMES.

|  | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1000•1 | $1000 \cdot 2$ | $1000 \cdot 2$ | 1000\%3 | $1000 \cdot 4$ |
| 2 | 1000.2 | 1000*3 | 1000•3 | $1000 \cdot 4$ | $1000 \cdot 5$ |
| 3 | 1000\%2 | 1000-3 | $1000 \cdot 3$ | $1000 \cdot 4$ | $1000 \cdot 5$ |
| 4 | $1000 \cdot 4$ | $1000 \cdot 4$ | $1000 \cdot 5$ | $1000 \cdot 5$ | $1000 \cdot 6$ |
| 5 | $1000 \cdot 5$ | $1000 \cdot 5$ | $1000 \cdot 6$ | $1000 \cdot 6$ | $1000 \cdot 7$ |
| 6 | $1000 \cdot 6$ | $1000 \cdot 6$ | 1000\% | $1000 \cdot 7$ | 1000•8 |
| 7 | 1000\% 7 | $1000 \cdot 8$ | 1000.8 | 1000*9 | 1000*9 |
| 8 | 1000•9 | IOOI•0 | 1001.0 | 1001.1 | 1001.1 |
| 9 | 1001.0 | IOOI I | 1001.I | 1001.2 | 1001.2 |
| 10 | 1001.2 | 1001'3 | 1001.3 | 1001.4 | $1001 \cdot 4$ |
| 11 | 1001.4 | 1001.4 | 1001.5 | 1001.5 | 1001.6 |
| 12 | 1001.7 | $1001 \cdot 7$ | 1001.8 | IOOI.8 | 1001.8 |
| 13 | 1002.0 | $1002 \cdot 0$ | 1002.1 | 1002.1 | 1002.1 |
| 14 | $1002 \cdot 3$ | $1002 \cdot 3$ | 1002.3 | $1002 \cdot 3$ | $1002 \cdot 3$ |
| 15 | $1002 \cdot 6$ | $1002 \cdot 6$ | $1002 \cdot 6$ | $1002 \cdot 6$ | $1002 \cdot 6$ |
| 16 | 1003.0 | 1003.0 | 1002.9 | 1002.9 | 1002.9 |
| 17 | 1003.4 | 1003.4 | $1003 \cdot 3$ | $1003 \cdot 3$ | $1003 \cdot 3$ |
| 18 | 1003.8 | $1003 \cdot 7$ | $1003 \cdot 7$ | 1003.6 | $1003 \cdot 6$ |
| 19 | 1004.2 | 1004.2 | 1004.1 | 1004* 1 | $1004{ }^{\circ}$ |
| 20 | 10047 | 10047 | 1004.6 | 1004.6 | 10045 |
| 21 | $1005 \cdot 2$ | 1005.1 | $1005^{1}$ | 1005.0 | 10049 |
| 22 | $1005 \cdot 7$ | $1005^{6}$ | 1005.6 | 1005.5 | 10054 |
| 23 | $1006 \cdot 2$ | 1006.I | 1005.9 | $1005 \cdot 8$ | $1005 \cdot 7$ |
| 24 | $1006 \cdot 6$ | 1006.5 | $1006 \cdot 3$. | $1006 \cdot 2$ | $1006 \cdot 1$ |
| 25 | $1007 \cdot 1$ | 1006•9 | 1006•7 | $1006 \cdot 6$ | 1006. 5 |

VOLUMES.

|  | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $1007 \cdot 5$ | $1007 \cdot 3$ | 1007.2 | $1007^{\circ}$ | $1006 \cdot 9$ |
| 27 | $1007 \cdot 9$ | $1007 \cdot 8$ | $1007 \cdot 6$ | $1007 \cdot 5$ | $1007 \cdot 3$ |
| 28 | $1008 \cdot 4$ | $1008 \cdot 2$ | 1008•I | $1007 \%$ | $1007 \cdot 7$ |
| 29 | 1008.9 | $1008 \cdot 7$ | $1008 \cdot 6$ | $1008 \cdot 4$ | $1008 \cdot 2$ |
| 30 | 1009.5 | 1009•3 | 1009 1 | $1008 \cdot 9$ | $1008 \cdot 7$ |
| 31 | $1010 \cdot 0$ | $1009^{\circ}$ | 1009.5 | 1009*3 | 1009 1 |
| 32 | $1010 \cdot 5$ | 1010.3 | $1010 \cdot 0$ | 1009.8 | 1009 5 |
| 33 | 1010.9 | $1010 \cdot 7$ | $1010 \cdot 4$ | $1010 \cdot 2$ | 1009*9 |
| 34 | 1011.3 | 1011'1 | $1010 \cdot 8$ | $1010 \cdot 6$ | $1010 \cdot 3$ |
| 35 | IOII 18 | 1011.5 | 1011.3 | $1010 \cdot 9$ | $1010 \cdot 7$ |
| 36 | 1012.2 | 1011.9 | 1011.7 |  |  |
| 37 | 1012.8 | 1012.5 | $1012 \cdot 2$ | 1011*9 | 1011.6 |
| 38 | 1013.3 | 1013.0 | $1012 \cdot 7$ | 1012.4 | 1012.1 |
| 39 | $1013 \cdot 6$ | 1013.3 | 1012.9 | 1012.6 | $1012 \cdot 3$ |
| 40 | 1013.8 | 1013.4 | IOI3.I | $1012 \cdot 7$ | - 4 |
| 41 | 1014.1 | 10137 | 1013.4 | 1013.0 | $1012 \cdot 7$ |
| 42 | 1014.4 | 1014.0 | $1013 \cdot 7$ | 1013.3 | 1013.0 |
| 43 | 1014.6 | 1014.3 | 1013.9 | 1013.6 | $1013 \cdot 2$ |
| 44 | 1014.9 | 1014.5 | 1014.2 | $1013 \cdot 8$ | 1013.5 |
| 45 | $1015 \cdot 2$ | 1014.8 | 1014.5 | 1014* | 1013.7 |
| 46 | 10154 | $1015^{\circ} 1$ | 10147 | 1014.4 | $1014^{\circ}$ |
| 47 | $1015 \%$ | 1015*3 | $1015^{\circ}$ | 1014.6 | 1014.2 |
| 48 | 1015.9 | 1015.5 | $1015 \cdot 2$ | 1014.8 | 1014.4 |
| 49 | 1016.1 | $1015 \%$ | 1015.3 | 1014.9 | $1014{ }^{\circ} 5$ |
| 50 | 1016.3 | $1015{ }^{\circ}$ | $1015 \cdot 5$ | $1015 \cdot 1$ | $1014 \%$ |

$$
21^{\circ}-25^{\circ}
$$

## VOLUMES.

| 免运 | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 1016.5 | 1016.1 | 10157 | 1015.3 | 1014.9 |
| 52 | 1016.8 | 1016.4 | 1015\% | 1015.5 | $1015 \cdot 1$ |
| 53 | 1017.0 | $1016 \cdot 6$ | 1016.I | $1015 \%$ | $1015 \cdot 3$ |
| 54 | $1017{ }^{1}$ | $1016 \cdot 7$ | $1016 \cdot 2$ | 1015.8 | 1015.4 |
| 55 | $1017 \cdot 2$ | 1016.8 | $1016 \cdot 3$ | 1015.9 | 1015.5 |
| 56 | 1017.3 | 1016.9 | 1016.4 | $1016 \cdot 0$ | $1015 \cdot 6$ |
| 57 | 1017.5 | $1017^{\circ} \mathrm{i}$ | $1016 \cdot 7$ | 1016.2 | 1015.8 |
| 58 | 1017.7 | 1017.2 | 1016.8 | $1016 \cdot 3$ | 1015.9 |
| 59 | 1017.8 | 1017.3 | $1016 \cdot 9$ | $1016 \cdot 4$ | 1016.0 |
| 60 | 10179 | $1017 \cdot 5$ | $1017^{\circ} 0$ | 1016.6 | $1016 \cdot 2$ |
| 61 | 1018.1 | $1017 \cdot 6$ | $1017{ }^{\circ} 2$ | $1016 \cdot 7$ | $1016 \cdot 3$ |
| 62 | $1018 \cdot 2$ | 1017.8 | 1017.3 | $1016 \cdot 9$ | 1016.4 |
| 63 | $1018 \cdot 3$ | 1017.9 | $1017 \cdot 4$ | $1017{ }^{\circ}$ | 1016.5 |
| 64 | $1018 \cdot 4$ | $1018 \cdot 0$ | 1017.5 | 1017.1 | $1016 \cdot 6$ |
| 65 | $1018 \cdot 5$ | $1018 \cdot 1$ | $1017 \cdot 6$ | $1017 \cdot 2$ | $1016 \cdot 7$ |
| 66 | $1018 \cdot 7$ | $1018 \cdot 3$ | $1017 \cdot 8$ | 1017.4 | $1016 \cdot 9$ |
| 67 | 1019*0 | $1018 \cdot 5$ | $1018 \cdot 1$ | 1017.6 | $1017 \cdot 1$ |
| 68 | $1019^{\circ}$ | $1018 \cdot 5$ | $1018 \cdot 1$ | 1017.6 | $1017 \cdot 1$ |
| 69 | $1019{ }^{\circ}$ | $1018 \cdot 5$ | $1018 \cdot 1$ | 1017.6 | $1017 \cdot 1$ |
| 70 | 1019*1 | $1018 \cdot 7$ | $1018 \cdot 2$ | 1017.8 | $1017 \cdot 3$ |
| 71 | 1019.3 | 1018.8 | 1018.4 | $1017{ }^{\circ} 9$ | 1017.4 |
| 72 | 1019.4 | $1019{ }^{\circ}$ | $1018 \cdot 5$ | boI8•1 | 1017.6 |
| 73 | 1019.5 | $1019{ }^{\circ}$ | 1018.6 | IOI8•1 | 1017.6 |
| 74 | 1019.6 | 1019.1 | $1018 \cdot 7$ | $1018 \cdot 2$ | $1017 \%$ |
| 75 | 1019.8 | 1019.3 | $1018 \cdot 8$ | $1018 \cdot 3$ | 1017.8 |

VOLUMES.

|  | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 1019.9 | 1019.4 | 1018.9 | 1018.4 | 1017.9 |
| 77 | $1020 \cdot 0$ | IOI9. 5 | 1019* | 1018.5 | 1018.0 |
| 78 | $1020 \cdot 2$ | 1019.7 | 1019.2 | $1018 \cdot 7$ | $1018 \cdot 2$ |
| 79 | 1020.3 | 1019.8 | 1019.3 | IO18.8 | $1018 \cdot 3$ |
| 80 | $1020 \cdot 5$ | 1020.0 | IOI9.4 | IOI $8 \cdot 9$ |  |
| 81 | 1020.7 | $1020 \cdot 2$ | 1019.6 | 1019* 1 | 1018.6 |
| 82 | $1020 \cdot 9$ | $1020 \cdot 4$ | IO19.8 | $1019 \cdot 3$ | $1018 \cdot 8$ |
| 83 | IO2I•I | $1020 \cdot 5$ | $1020 \cdot 0$ | 1019.4 | 1018.9 |
| 84 | 1021.2 | $1020 \cdot 6$ | 1020.1 | 1019.5 | $1019{ }^{\circ}$ |
| 85 | $1021 \cdot 2$ | $1020 \cdot 6$ | $1020 \cdot 1$ | 1019.5 | $1019{ }^{\circ}$ |
| 86 | 102I.2 | 1020 | $1020 \cdot 1$ | 1019.5 | 10190 |
| 87 | 102I•3 | $1020 \cdot 7$ | $1020 \cdot 2$ | 1019.6 | IOI9'I |
| 88 | 1021.4 | $1020 \cdot 9$ | $1020 \cdot 3$ | 1019.8 | $1019 \cdot 3$ |
| 89 | 1021.6 | 1021.0 | $1020 \cdot 5$ | 1019.9 | 1019.4 |
| 90 | $1021 \cdot 7$ | 102I'I | $1020 \cdot 6$ | $1020 \cdot 0$ | 1019.5 |
| 1 | $1021 \cdot 7$ | 1021.2 | $1020 \cdot 6$ | $1020 \cdot 1$ | 1019.5 |
| 92 | 1021.8 | 102I'2 | $1020 \cdot 7$ | 1020.1 | 1019.6 |
| 93 | IO2I.9 | 102I'3 | $1020 \cdot$ | $1020 \cdot 2$ |  |
| 94 | 1022.0 | 102I.5 | $1020 \cdot 9$ | $1020 \cdot 4$ | 019 |
| 95 | $1022 \cdot 1$ | 1021.5 | 1021.0 | $1020 \cdot 4$ | 019.9 |
| 96 | 1022.2 | 1021.6 | 102 I I | $1020 \cdot 5$ | $020 \cdot 0$ |
| 97 | 1022.2 | 16217 | 102II | $1020 \cdot 6$ | $1020 \cdot 1$ |
| 98 | $1022 \cdot 4$ | 1021.8 | 102I•3 | $1020 \cdot 7$ | $1020 \cdot 2$ |
| 99 | $1022 \cdot 4$ | 1021.9 | 102I.3 | $1020 \cdot 8$ | $1020 \cdot 2$ |
| 100 | $1022 \cdot 5$ | 1022.0 | 1021.4 | $1020 \cdot 9$ | 1020.3 |

$$
26^{\circ}-30^{\circ}
$$

VOLUMES.

|  | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1000. 5 | $1000 \cdot 6$ | $1000 \cdot 6$ | 1000•7 | $1000 \cdot 8$ |
| 2 | $1000 \cdot 6$ | $1000 \cdot 6$ | 1000•7 | 1000.7 | 1000•8 |
| 3 | $1000 \cdot 6$ | $1000 \cdot 6$ | $1000 \cdot 7$ | $1000 \cdot 7$ | 1000•8 |
| 4 | $1000 \cdot 7$ | 1000.7 | $1000 \cdot 8$ | $1000 \cdot 8$ | 1000*9 |
| 5 | 1000.7 | $1000 \cdot 8$ | $1000 \cdot 8$ | $1000 \cdot 9$ | 1000.9 |
| 6 | $1000 \cdot 8$ | 1000*9 | 1000*9 | 1001'0 | 1001.0 |
| 7 | 1000*9 | 1001.0 | 1001.0 | 1001'I | 1001.1 |
| 8 | IOOI'I | 1001 1 | 1001.2 | 1001•2 | 1001•2 |
| 9 | 1001.2 | 1001.3 | 1001•3 | 1001.4 | 1001-4 |
| 10 | 1001.4 | 1001.4 | 1001.5 | 1001.5 | 1001. 5 |
| 11 | 1001.6 | 1001.6 | 1001.6 | 1001:7 | 1001\% |
| 12 | 1001.8 | 1001.8 | 1001•9 | 1001•9 | 1001•9 |
| 13 | 1002.1 | 1002.1 | $1002 \cdot 1$ | 1002.1 | $1002 \cdot 1$ |
| 14 | 1002.3 | 1002.3 | $1002 \cdot 3$ | 1002.3 | 1002.3 |
| 15 | $1002 \cdot 6$ | $1002 \cdot 6$ | $1002 \cdot 5$ | $1002 \cdot 5$ | 1002.5 |
| 16 | 1002.9 | 1002.9 | 1002•8 | 1002.8 | 1002.8 |
| 17 | $1003 \cdot 3$ | $1003 \cdot 2$ | 1003.2 | 1003•I | $1003 \cdot 1$ |
| 18 | $1003 \cdot 6$ | $1003 \cdot 5$ | $1003 \cdot 5$ | $1003 \cdot 4$ | $1003 \cdot 4$ |
| 19 | 1003.9 | 1003.9 | $1003 \cdot 8$ | 1003.8 | $1003 \cdot 7$ |
| 20 | 1004.4 | $1004 \cdot 3$ | 10043 | 1004.2 | 1004 ${ }^{1}$ |
| 21 | 1004.8 | 1004*7 | 1004.7 | $1004 \cdot 6$ | 1004.5 |
| 22 | 1005•3 | $1005 \cdot 2$ | 1005.1 | 1005.0 | 1004.9 |
| 23 | $1005 \cdot 6$ | 1005.5 | $1005 \cdot 4$ | $1005 \cdot 3$ | 1005:2 |
| 24 | $1006 \cdot$ | $1005 \cdot 8$ | $1005 \cdot 7$ | 1005:5 | $1005 \cdot 4$ |
| 25 | $1006 \cdot 3$ | 1006.2 | 1006•0 | 1005\% | 1005\% |

VOLUMES.

| $\sqrt{2}$ | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $1006 \cdot 7$ | $1006 \cdot 6$ | $1006 \cdot 4$ | $1006 \cdot 3$ | 1006•1 |
| 27 | 1007.1 | 1006.9 | 1006•8 | 1006.6 | $1006 \cdot 4$ |
| 28 | 10075 | 1007.3 | $1007 \cdot 2$ | 1007.0 | 1006•8 |
| 29 | $1008 \cdot 0$ | $1007 \cdot 8$ | $1007 \cdot 6$ | $1007 \cdot 4$ | 1007.2 |
| 30 | $1008 \cdot 5$ | 1008.3 | 1008.0 | 1007.8 | $1007 \cdot 6$ |
| 31. | 1008•9 | $1008 \cdot 7$ | $1008 \cdot 4$ | $1008 \cdot 2$ | $1008 \cdot 0$ |
| 32 | $1009 \cdot 3$ | $1009^{\circ}$ | $1008 \cdot 8$ | $1008 \cdot 5$ | 1008•3 |
| 33 | 1009.6 | $1009 \cdot 4$ | 1009'1 | $1008 \cdot 9$ | 1008.6 |
| 34 | 1010.0 | 1009.8 | 1009.5 | 1009 1 | 1009*0 |
| 35 | 10 | 1010.1 | 1009*9 | $1009 \cdot 6$ | $1009 \cdot 3$ |
| 36 | 10 | $1010 \cdot 5$ | 1010.2 | 1009*9 |  |
| 37 | 101 | 10110 | $1010 \cdot 6$ | $1010 \cdot 3$ | $1010 \cdot 0$ |
| 38 | 1011.8 | 1011.5 | IOII I | 1010.8 |  |
| 39 | 1012.0 | 1011.6 | IOII•3 | 1010.9 | $1010 \cdot 6$ |
| 40 | 1012.1 | IOII• 8 | 1011.4 | IOII'I | $1010 \cdot 8$ |
| 41 | 1012.4 | 1012.0 | IOII 7 | 1011.3 | 10110 |
| 42 | 1012.6 | 1012.3 | 1011.9 | 1011.6 | 1011.2 |
| 43 | 1012.8 | 1012.5 | 1012.I | 10 | 14 |
| 44 | 1013.1 | 10 |  | 10 | 1011•7 |
| 45 | 1013.3 | 1013.0 | 10 | $1012 \cdot 2$ | IOII•9 |
| 46 | 1013.6 | 1013.2 | IOI2.9 | IOI 2.5 | $1012 \cdot 1$ |
| 47 | 1013.8 | IO13.4 | 1013.1 | $1012 \cdot 7$ | $1012 \cdot 3$ |
| 48 | $1014{ }^{\circ}$ | 1013.6 | 1013.2 | IOI2.8 | IOI2.4 |
| 49 | $10^{\prime} 4^{\circ} 1$ | $1013 \cdot 7$ | IO13.3 | IOI2.9 | 1012.5 |
| 50 | 10143 | 1013.9 | 1013.5 | 1013.1 | $1012 \cdot 7$ |

$$
26^{\circ}-30^{\circ}
$$

VOLUMES.

|  | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 10145 | IOI4.I | 1013.6 | 1013.2 | 1012.8 |
| 52 | 10147 | 1014.3 | 1013.9 | 1013.5 | 1013.1 |
| 53 | 1014.9 | 10145 | 1014.0 | 1013.6 | 1013.2 |
| 54 | $1015^{\circ}$ | 1014.6 | 1014'I | 10137 | IOI3.3 |
| 55 | 1015.1 | 1014.7 | 1014.2 | $1013 \cdot 8$ | IOI 3.4 |
| 56 | 1015.2 | 1014.8 | 10143 | 1013.9 | 1013.5 |
| 57 | 1015.4 | 1014.9 | 1014.5 | $1014{ }^{\circ}$ | 1013.6 |
| 58 | $1015 \%$ | $1015 \cdot 1$ | 1014.6 | 1014.2 | Ior 3.8 |
| 59 | 1015.6 | 1015.I | IO14.6 | $1014{ }^{2}$ | 1013.8 |
| 60 | $1015 \cdot 7$ | 1015.3 | 1014.8 | IOI4.4 | IOI3.9 |
| 61 | 1015.9 | 1015.4 | $1015^{\circ}$ | 10145 | 1014.I |
| 62 | 1015.9 | 1015.5 | 1015.1 | 1014.6 | 1014.2 |
| 63 | 1016.1 | 1015.6 | $1015 \cdot 2$ | 1014.7 | 10143 |
| 64 | 1016.I | $1015 \cdot 7$ | $1015^{2}$ | 1014.8 | 1014.3 |
| 65 | $1016 \cdot 2$ | 1015.8 | 1015.3 | IOI4*9 | 1014.4 |
| 66 | 1016.4 | 1016.0 | IOI 5.5 | 1015.1 | 1014.6 |
| 67 | $1016 \cdot 6$ | $1016 \cdot 2$ | 1015\%7 | 1015.3 | 1014.8 |
| 68 | 1016.6 | $1016 \cdot 2$ | 1015.7 | 1015.3 | IOI4.8 |
| 69 | 1016.6 | $1016 \cdot 2$ | 1015\% | 1015.3 | 1014.8 |
| 70 | 1016.8 | $1016 \cdot 3$ | IOI 5 9 | 1015.4 | 1014.9 |
| 71 | 1016.9 | 1016.4 | $1016 \cdot 0$ | 1015.5 | $1015^{\circ}$ |
| 72 | $1017 \cdot 1$ | 1016.6 | $1016 \cdot 1$ | $1015 \cdot 6$ | $1015^{\circ} 1$ |
| 73 | 1017.1 | 1016.6 | $1016 \cdot 2$ | $1015 \cdot 7$ | $1015^{\circ}$ |
| 74 | 1017.2 | $1016 \cdot 7$ | 1016.3 | $1015 \cdot 8$ | IOI $5 \cdot 3$ |
| 75 | $1017 \cdot 3$ | 1016.8 | 1016.4 | 10159 | $1015 \%$ |

VOLUMES.

|  | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 1017.4 | 1016.9 | 1016.4 | $1015{ }^{\circ}$ | $1015 \cdot 4$ |
| 77 | $1017 \cdot 5$ | $1017{ }^{\circ}$ | 1016.5 | 1016.0 | 1015.5 |
| 78 | 1017.7 | $1017^{\circ}$ | 1016.6 | 1016.1 | $1015 \cdot 6$ |
| 79 | 1017.8 | 1017.3 | 1016.8 | 1016.3 | 1015.8 |
| 80 | 10179 | 10174 | 1016.9 | 1016.4 | 1015.9 |
| 81 | $1018 \cdot 1$ | 1017.6 | $1017^{\circ}$ |  | 1016.0 |
| 82 | 1018.3 | $1017 \cdot 7$ | 1017.2 | $1016 \cdot 6$ | $1016 \cdot 1$ |
| 83 | $1018 \cdot 4$ | 1017.8 | $1017 \cdot 3$ | 1016.8 | $1016 \cdot 3$ |
| 84 | $1018 \cdot 5$ | 1018.0 | 1017.4 | 1016.9 | $1016 \cdot 4$ |
| 85 | $1018 \cdot 5$ | $1018 \cdot 0$ | 10174 | $1016 \cdot 9$ | 1016.4 |
| 86 | $1018 \cdot 5$ | 1018.0 | 1017.4 | 1016.9 | 1016.4 |
| 87 | $1018 \cdot 6$ | $1018 \cdot 1$ | $1017 \cdot 5$ | $1017^{\circ}$ | $1016 \cdot 5$ |
| 88 | $1018 \cdot 8$ | $1018 \cdot 2$ | 1017.7 | 1017.1 | 1016.6 |
| 89 | $1018 \cdot 9$ | $1018 \cdot 3$ | 1017.8 | 1017.2 | $1016 \cdot 7$ |
| 90 | $1019{ }^{\circ}$ | $1018 \cdot 4$ | 1017.9 | $1017 \cdot 3$ | 1016.8 |
| 91 | $1019^{\circ}$ | 1018.4 | $1017{ }^{\circ} 9$ | 1017.3 | 1016.8 |
| 92 | 1019.1 | $1018 \cdot 5$ | $1018{ }^{\circ}$ | 1017.4 | $1016 \cdot 9$ |
| 93 | 1019.2 | $1018 \cdot 6$ | $1018 \cdot 1$ | 1017.5 | $1017 \cdot 0$ |
| 94 | 1019.3 | $1018 \cdot 7$ | $1018 \cdot 2$ | 1017.6 | 1017.1 |
| 95 | 1019.3 | 1018.8 | $1018 \cdot 2$ | $1017 \%$ | $1017 \cdot 1$ |
| 96 | 1019.4 | $1018 \cdot 9$ | 1018.3 | 1017.8 | $1017 \cdot 2$ |
| 97 | 1019.5 | 1018.9 | $1018 \cdot 4$ | 1017.8 | $1017 \cdot 2$ |
| 98 | 1019.6 | IOI9.0 | 1018.5 | 1017.9 | 1017.3 |
| 99 | 1019.6 | 1019 1 | IOI $8 \cdot 5$ | $1018 \cdot 0$ | $1017 \cdot 4$ |
| 100 | 1019.7 | 1019 ${ }^{\text {I }}$ | $1018 \cdot 6$ | 1018.0 | $1017 \cdot 4$ |

$31^{\circ}-35^{\circ}$
VOLUMES.

|  | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | $1000 \cdot 8$ | $1000 \cdot 8$ | 1000*9 | $1000 \cdot 9$ | $1000 \cdot 9$ |
| 2 | $1000 \cdot 8$ | $1000 \cdot 8$ | 1000*9 | 1000*9 | $1000 \cdot 9$ |
| 3 | 1000•8 | 1000•9 | $1000 \cdot 9$ | 1001.0 | $1001 \cdot 0$ |
| 4 | 1000•9 | 1000.9 | 1001* | 1001.0 | 1001* |
| 5 | 1000*9 | 1000•9 | IOOI'0 | 1001.0 | 1001.0 |
| 6 | 1001•O | 1001•0 | 1001'I | 1001.I | 1001•I |
| 7 | 1001.1 | 1001.1 | 1001.2 | 1001.2 | 1001.2 |
| 8 | 1001.2 | 1001.2 | 1001 3 | 1001•3 | 1001•3 |
| 9 | 1001.4 | 1001.4 | 1001.4 | 1001.4 | 1001-4 |
| 10 | 1001 5 | 1001.5 | IOOI 5 | 1001.5 | 1001•5 |
| 11 | 1001`7 | $1001 \cdot 7$ | 1001.6 | 1001.6 | 1001.6 |
| 12 | 1001*9 | 1001*9 | 1001.8 | IOOI 8 | 1001.8 |
| 13 | 1002'I | 1002'1 | $1002 \cdot 0$ | 1002.0 | $1002 \cdot 0$ |
| 14 | 1002.3 | $1002 \cdot 2$ | $1002 \cdot 2$ | $1002 \cdot 1$ | 1002.1 |
| 15 | $1002 \cdot 5$ | $1002 \cdot 5$ | $1002 \cdot 4$ | $1002 \cdot 4$ | $1002 \cdot 4$ |
| 16 | $1002 \cdot 8$ | $1002 \cdot 7$ | $1002 \cdot 7$ | 1002.6 | $1002 \cdot 6$ |
| 17 | $1003 \cdot 0$ | $1003^{\circ}$ | $1002 \cdot 9$ | 1002.9 | 1002.8 |
| 18 | $1003 \cdot 3$ | $1003 \cdot 2$ | $1003^{2}$ | 1003.1 | $1003 \cdot 0$ |
| 19 | $1003 \cdot 6$ | $1003 \cdot 5$ | 1003.5 | 1003.4 | $1003 \cdot 3$ |
| 20 | 1004.0 | 1003.9 | $1003 \cdot 8$ | 10037 | $1003 \cdot 6$ |
| 21 | 1004.4 | 1004.3 | $1004^{2}$ | 1004.I | 1004.0 |
| 22 | 1004.8 | $1004 \cdot 6$ | 10045 | 10043 | $1004 \cdot 2$ |
| 23 | $1005^{\text {¹ }}$ | 1004.9 | 1004.8 | 1004.6 | 1004.5 |
| 24 | 1005*3 | $1005^{\circ} \mathrm{I}$ | $1005^{\circ}$ | 1004.8 | 10047 |
| 25 | $1005 \cdot 6$ | $1005 \cdot 4$ | 1005.3 | 1005.1 | $1005^{\circ}$ |

## VOLUMES.

|  | $31^{\circ}$ | $32^{\circ}$ | 33 | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 1005\%9 | 10057 | $1005 \cdot 6$ | $1005 \cdot 4$ | 1005.2 |
| 27 | 1006.2 | 1006.0 | 1005.9 | 10057 | 1005.5 |
| 28 | 1006.6 | 1006.4 | $1006 \cdot 2$ | 1006 | $1005 \cdot 8$ |
| 29 | 1007.0 | 1006•8 | $1006 \cdot 5$ | 1006.3 | 1006•1 |
| 30 | $1007 \cdot 4$ | 1007'1 | 1006.9 | $1006 \cdot 6$ | $1006 \cdot 4$ |
| 31 | $1007 \cdot 8$ | $1007 \cdot 5$ | 10073 | 1007* | $1006 \cdot 8$ |
| 32 | $1008 \cdot 1$ | $1007 \cdot 8$ | $1007 \cdot 6$ | $1007 \cdot 3$ | 1007.1 |
| 33 | $1008 \cdot 3$ | 1008.I | $1007 \cdot 8$ | $1007^{-6}$ | $1007 \cdot 3$ |
| 34 | $1008 \cdot 7$ | $1008 \cdot 4$ | $1008 \cdot 2$ | 10079 | $1007 \cdot 6$ |
| 35 | 1009.0 | $1008 \cdot 7$ | $1008 \cdot 5$ | 1008-2 | 1007.9 |
| 36 | 1009 3 | $1009^{\circ}$ | 1008.8 | 10 | 1008•2 |
| 37 | $1009 \cdot 7$ | $1009 \cdot 4$ | 1009.1 | $1008 \cdot 8$ | 10 |
| 38 | $1010 \cdot 2$ | 1009.8 | 1009. 5 | 1009 1 | 10 |
| 39 | $1010 \cdot 3$ | 1009.9 | $1009 \cdot 6$ | $1000^{2}$ | 1008.9 |
| 40 | 1010. 5 | IOIO.I | 1009.8 | $1009 \cdot 4$ | 1009*1 |
| 41 | 1010.6 | $1010 \cdot 3$ | 1009.9 | 1009.6 | $1009^{\cdot 2}$ |
| 42 | 1010.8 | $1010 \cdot 5$ | 1010.I | 1009.8 | $1009 \cdot 4$ |
| 43 | IOII.O | $1010 \cdot 7$ | $1010 \cdot 3$ | 10100 | 1009:6 |
| 44 | 1011.3 | $1010 \cdot 9$ | $1010 \cdot 6$ | $1010 \cdot 2$ | $1009 \cdot 8$ |
| 45 | 1011.5 | IOII'I | 1010.8 | 1010.4 | $1010 \cdot 0$ |
| 46 | 10117 | 10113 | $1010 \cdot 9$ | $1010 \cdot 5$ | 1010'1 |
| 47 | IOII9 | 1011.5 | IOII'I | $1010 \cdot 7$ | 10103 |
| 48 | 1012.0 | 1011.6 | IOII. 2 | 1010.8 | $1010 \cdot 4$ |
| 49 | 1012.I | 10117 | IOII 3 | $1010 \cdot 9$ |  |
| 50 | IOI2.3 | IOII'9 | 1011.4 | IOII'O | $1010 \cdot 6$ |

## $31^{\circ}-35^{\circ}$

 VOLUMES.|  | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | IOI2.4 | 1012.0 | 1011.6 | 1011.2 | $1010 \cdot 8$ |
| 52 | $1012 \cdot 7$ | 1012.2 | 1011.8 | 1011-3 | $1010 \cdot 9$ |
| 53 | 1012.8 | 1012.4 | 10119 | IOII 5 | 1011-1 |
| 54 | 1012.9 | 1012.5 | 1012.0 | 1011.6 | $1011 \cdot 2$ |
| 55 | $1013 \cdot 0$ | 1012.5 | $1012 \cdot 1$ | 10116 | 1011.2 |
| 56 | 1013.1 | 1012.6 | 1012.2 | 10117 | 1011.3 |
| 57 | 1013.2 | $1012 \cdot 7$ | $1012 \cdot 3$ | 1011.8 | 1011.4 |
| 58 | 1013.3 | $1012 \cdot 9$ | 1012.4 | 1012.0 | 1011.5 |
| 59 | 1013.4 | $1012 \cdot 9$ | 1012.5 | 1012.0 | 1011.6 |
| 60 | $1013 \cdot 5$ | $1013{ }^{\circ}$ | 1012.6 | 1012.1 | 10117 |
| 61 | 1013.6 | 1013.2 | $1012 \cdot 7$ | $1012 \cdot 3$ | 1011.8 |
| 62 | 1013.7 | 1013.3 | 1012.8 | $1012 \cdot 4$ | 10119 |
| 63 | 1013.8 | 1013.4 | 1012.9 | 1012.5 | 1012.0 |
| 64 | IOI $3 \cdot 8$ | 1013.4 | 1012.9 | 1012.5 | 1012.0 |
| 65 | 1013.9 | 1013.5 | $1013^{\circ}$ | 1012.6 | $1012 \cdot 1$ |
| 66 | 1014.1 | 1013.6 | 1013.2 | $1012 \cdot 7$ | 1012.2 |
| 67 | 10143 | 1013.8 | 1013.4 | $1012 \cdot 9$ | 1012.4 |
| 68 | 10143 | $1013 \cdot 8$ | IOI 3.4 | 1012.9 | 1012.4 |
| 69 | 1014.3 | 1013.8 | 1013.4 | 1012.9 | 1012.4 |
| 70 | 1014.4 | 1013.9 | 1013.5 | $1013{ }^{\circ}$ | 1012.5 |
| 71 | 1014.5 | 1014*0 | 1013.6 | 1013.I | 1012.6 |
| 72 | 1014.6 | 1014.1 | $1013 \cdot 7$ | 1013.2 | $1012 \cdot 7$ |
| 73 | 1014.7 | 1014.2 | 1013.7 | 1013.2 | $1012 \cdot 7$ |
| 74 | 1014.8 | 10143 | $1013 \cdot 8$ | 1013.3 | 1012.8 |
| 75 | 1014.9 | 1014.4 | IOI $3 \cdot 8$ | $1013 \cdot 3$ | IOI2.8 |

$31^{\circ}-35^{\circ}$

## VOLUMES.

| His | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 1014.9 | 1014.4 | 1013.9 | 1013.4 | 1012.9 |
| 77 | $1015^{\circ}$ | IOI 4.5 | 1014.0 | IOI 3.5 | $1013{ }^{\circ}$ |
| 78 | $1015 \cdot 1$ | 1014.6 | 1014.I | 1013.6 | $1013 \cdot 1$ |
| 79 | 1015.3 | 1014.8 | 1014.2 | 1013.7 | 1013.2 |
| 80 | $1015 \cdot 4$ | 1014.9 | 10143 | $1013 \cdot 8$ | 1013.3 |
| 8 | $1015 \cdot 5$ | $1015^{\circ}$ | 1014.4 | 1013.9 | IOI 3.4 |
| 82 | $1015 \cdot 6$ | 1015.1 | 10145 | 1014.0 | 1013.5 |
| 83 | $1015 \cdot 8$ | $1015 \cdot 2$ | 1014.7 | 1014 | 1013.6 |
| 84 | $1015 \%$ | 1015:3 | 1014.8 | 1014.2 | 1013.7 |
| 85 | $1015 \%$ | 1015.3 | 1014.8 | 1014.2 | 1013.7 |
| 86 |  | 1015*3 | 1014.8 | 1014.2 |  |
| 87 | $1016 \cdot 0$ | $1015 \%$ | 10149 | 1014.3 | 1013.8 |
| 88 | $1016 \cdot 1$ | 1015 | $1015{ }^{\circ}$ | IOI4.4 | IOI 3.9 |
| 89 | $1016 \cdot 1$ | 1015.6 | $1015{ }^{\circ}$ | 1014.5 | 1013.9 |
| 90 | $1016 \cdot 2$ | $1015 \cdot 7$ | 1015.1 | 1014.6 |  |
| 91 | $1016 \cdot 3$ | 1015 | 1015.2 | 1014.6 | $1014{ }^{\circ} 1$ |
| 92 | $1016 \cdot 3$ | IOI $5^{\circ} 8$ | 1015.2 | 1014.7 | 1014.1 |
| 93 | $1016 \cdot 4$ | 1015.9 | 1015.3 | 1014.8 | 1014.2 |
| 94 | 1016.5 | $1016 \cdot 0$ | $1015 \cdot 4$ | 1014.9 | 1014.3 |
| 95 | 1016.5 | $1016 \cdot 0$ | $1015 \cdot 4$ | 1014.9 | 1014.3 |
| 96 | $1016 \cdot 6$ | 1016.I | $1015{ }^{\circ}$ | $1015^{\circ}$ | 10144 |
| 97 | 1016.6 | $1016 \cdot 1$ | IOI $5 \cdot 5$ | 1015.0 | 10144 |
| 98 | 1016.7 | $1016 \cdot 2$ | 1015.6 | 1015.1 | 10145 |
| 99 | 1016.8 | $1016 \cdot 2$ | $1015 \cdot 7$ | 1015.1 | 1014.5 |
| 100 | IOI 6.8 | $1016 \cdot 3$ | $1015 \%$ | 1015.2 | 1014.6 |

$36^{\circ}-40^{\circ}$
VOLUMES.

|  | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1000*9 | $1000 \cdot 9$ | 1000*9 | $1000 \cdot 9$ | $1000 \cdot 9$ |
| 2 | $1000 \cdot 9$ | $1000 \cdot 9$ | $1000 \cdot 9$ | 1000\%9 | $1000 \cdot 9$ |
| 3 | 1001'0 | 10010 | 1001.0 | $1001{ }^{\circ}$ | $1001{ }^{\circ}$ |
| 4 | 10010 | 10010 | 1001.0 | 1001.0 | 1001:0 |
| 5 | 10010 | 10010 | 1001.0 | 1001.0 | 1001.0 |
| 6 | 1001'I | 1001•1 | 1001•I | 1001•I | 1001 1 |
| 7 | 1001.2 | 1001.2 | 1001'I | 1001 1 | 1001'I |
| 8 | 1001.3 | 1001 3 | 1001'2 | $1001 \cdot 2$ | 1001:2 |
| 9 | 1001.4 | 10014 | 1001.3 | 1001 3 | 1001 3 |
| 10 | 1001'5 | 1001.5 | 1001.4 | 10014 | 1001.4 |
| 11 | 1001.6 | 1001•6 | 1001.5 | $1001 \cdot 5$ | 1001.5 |
| 12 | 1001.8 | 10017 | 1001'7 | 1001.6 | 1001.6 |
| 13 | $1002 \cdot 0$ | 1001.9 | 1001*9 | 1001.8 | 1001.8 |
| 14 | $1002 \cdot 1$ | $1002 \cdot 0$ | $1002 \cdot 0$ | 1001.9 | 1001*9 |
| 15 | 1002.3 | $1002 \cdot 2$ | $1002 \cdot 2$ | 1002.I | $1002 \cdot$ |
| 16 | $1002 \cdot 5$ | $1002 \cdot 4$ | 1002.4 | 1002.3 | 1002.2 |
| 17 | $1002 \cdot 7$ | $1002 \cdot 6$ | $1002 \cdot 6$ | $1002 \cdot 5$ | $1002 \cdot 4$ |
| 18 | $1002 \cdot 9$ | $1002 \cdot 8$ | 1002.8 | $1002 \cdot 7$ | 1002.6 |
| 19 | $1003 \cdot 2$ | $1003 \cdot 1$ | $1003 \cdot 0$ | $1002 \cdot 9$ | $1002 \cdot 8$ |
| 20 | $1003 \cdot 5$ | 1003.4 | $1003 \cdot 3$ | $1003 \cdot 2$ | $1003 \cdot 1$ |
| 21 | 1003.9 | $1003 \%$ | $1003 \cdot 6$ | $1003 \cdot 4$ | $1003 \cdot 3$ |
| 22 | 1004.1 | $1004^{\circ}$ | $1003 \cdot 8$ | $1003 \cdot 7$ | 1003.6 |
| 23 | $1004 \cdot 3$ | 1004.2 | 1004.0 | $1003 \cdot 9$ | $1003 \cdot 7$ |
| 24 | 1004.5 | 1004.4 | 1004.2 | 1004* | $1004^{\circ}$ |
| 25 | 1004.8 | $1004 \cdot 6$ | 1004.5 | 1004.3 | $1004 \cdot 1$ |

## VOLUMES.

|  | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $1005^{\circ}$ | $1004 * 8$ | $1004 \%$ | 10045 | 3 |
| 27 | 1005; | 1005 1 | $1005^{\circ}$ | 1004.8 | 1004.6 |
| 28 | 1005.6 | 1005.4 | 1005.2 | $1005^{\circ}$ | 1004.8 |
| 29 | $1005 \cdot 9$ | 1005\% | 1005\% | $1005^{2}$ | $1005^{\circ}$ |
| 30 | 1006.2 | 1006.0 | 1005\% | $1005^{\circ} 5$ | 1005.3 |
| 31 | $1006 \cdot 5$ | 1006•3 | 1006.0 | $1005 \cdot 8$ | $1005 \cdot 5$ |
| 32 | 1006.8 | 1006. 5 | 1006.3 | 1006 | $1005 \cdot 7$ |
| 33 | $1007^{\circ} 0$ | 1006.8 | $1006 \cdot 5$ | 1006•3 | $1006 \cdot$ |
| 34 | $1007 \cdot 3$ | 1007.0 | 1006•8 | $1006 \cdot 5$ | 1006.2 |
| 35 | 1007.6 | $1007 \cdot 3$ | $1007 \cdot 0$ | $1006 \cdot 7$ | $1006 \cdot 4$ |
| 36 | 1007.9 | $1007 \cdot 6$ | 1007.2 | 1006.9 | $1006 \cdot 6$ |
| 37 | $1008 \cdot 2$ | 10079 | 1007.5 | 1007.2 | 1006.9 |
| 38 | $1008 \cdot 5$ | 1008•1 | $1007 \cdot 8$ | $1007 \cdot 4$ | 10071 |
| 39 | $1008 \cdot 6$ | $1008 \cdot 2$ | 1007.9 | $1007 \cdot 5$ | 1007.2 |
| 40 | $1008 \cdot 7$ | $1008 \cdot 4$ | 1008.0 | 10077 | 1007.3 |
| 41 | $1008 \cdot 9$ | $1008 \cdot 5$ | 1008.2 | $1007 \cdot 8$ | $1007 \cdot 5$ |
| 42 | $1009^{\circ}$ | $1008 \cdot 7$ | $1008 \cdot 3$ | $1008 \cdot 0$ | 1007.6 |
| 43 | $1009^{2}$ | $1008 \cdot 9$ | $1008 \cdot 5$ | $1008 \cdot 2$ | 1007.8 |
| 44 | 1009.4 | 1009*0 | $1008 \cdot 7$ | $1008 \cdot 3$ | $1007 \cdot 9$ |
| 45 | $1009 \cdot 6$ | $1009 \cdot 2$ | $1008 \cdot 8$ | $1008 \cdot 4$ |  |
| 46 | 1009*7 | 1009*3 | 1009*0 | $1008 \cdot 6$ | 1008-2 |
| 47 | 1009.9 | $1009 \cdot 5$ | 1009 1 | $1008 \cdot 7$ | $1008 \cdot 3$ |
| 48 | $1010 \cdot 0$ | $1009 \cdot 6$ | $1009^{2}$ | $1008 \cdot 8$ | $1008 \cdot 4$ |
| 49 | 1010.1 | 1009.7 | $1009 \cdot 3$ | 1008.9 | $1008 \cdot 5$ |
| 50 | $1010 \cdot 2$ | 1009.8 | 1009.4 | 1009.0 | $1008 \cdot 6$ |

$$
36^{\circ}-40^{\circ}
$$

VOLUMES.

|  | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $1010 \cdot 4$ | $1010 \cdot 0$ | 1009.5 | 1009 ${ }^{\text {I }}$ | 1008.7 |
| 52 | 1010.5 | 1010.1 | $1009 \cdot 6$ | 1009.2 | 1008.8 |
| 53 | $1010 \cdot 7$ | $1010 \cdot 2$ | 1009.8 | 1009*3 | 1008.9 |
| 54 | $1010 \cdot 8$ | $1010 \cdot 3$ | 1009*9 | 1009*4 | 1009 0 |
| 55 | $1010 \cdot 8$ | $1010 \cdot 4$ | 1009*9 | 1009.5 | 1009.1 |
| 56 | $1010{ }^{\circ} 9$ | $1010 \cdot 4$ | $1010 \cdot 0$ | $1009 \cdot 5$ | 1009•1 |
| 57 | 10110 | $1010 \cdot 5$ | 1010.1 | $1009 \cdot 6$ | $1009 \cdot 2$ |
| 58 | 1011.1 | $1010 \cdot 6$ | $1010 \cdot 2$ | $1009 \cdot 7$ | 1009 3 |
| 59 | 10111 | $1010 \%$ | $1010 \cdot 2$ | 1009•8 | 1009 3 |
| 60 | 1011.2 | $1010 \cdot 8$ | $1010 \cdot 3$ | 1009*9 | $1009 \cdot 4$ |
| 61 | 10113 | 1010.9 | $1010 \cdot 4$ | $1010 \cdot 0$ | 10095 |
| 62 | 1011.4 | 10110 | 10105 | 1010'1 | $1009 \cdot 6$ |
| 63 | 1011.5 | 1011.0 | $1010 \cdot 6$ | 1010.1 | $1009 \cdot 6$ |
| 64 | 10115 | 10111 | $1010 \cdot 6$ | $1010 \cdot 2$ | 1009•7 |
| 65 | 10116 | 1011'1 | $1010 \cdot 7$ | $1010 \cdot 2$ | 10097 |
| 66 | 10117 | 1011.2 | 1010.8 | $1010 \cdot 3$ | 1009•8 |
| 67 | IOII'9 | 10114 | 1010.9 | $1010 \cdot 4$ | 1009`9 |
| 68 | IOII'9 | IOII.4 | IOII'O | $1010 \cdot 5$ | $1010 \cdot$ |
| 69 | 1011.9 | 10114 | IOII 0 | $1010 \cdot 5$ | $1010 \cdot 0$ |
| 70 | 1012.0 | 1011.5 | IOIII | $1010 \cdot 6$ | $1010 \cdot 1$ |
| 71 | 1012.1 | 1011.6 | IOIII | $1010 \cdot 6$ | 1010.I |
| 72 | 1012.2 | 10117 | 1011.2 | $1010 \%$ | 1010. 2 |
| 73 | 1012.2 | 10117 | 1011.2 | $1010 \%$ | $1010 \cdot 2$ |
| 74 | 1012.3 | 1011.8 | IOII 3 | $1010 \cdot 8$ | $1010 \cdot 3$ |
| 75 | $1012 \cdot 3$ | 1011.8 | 1011.3 | $1010 \cdot 8$ | $1010 \cdot 3$ |

$36^{\circ}-40^{\circ}$
VOLUMES.

| 号 | $36^{\circ}$ | 37 | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 1012.4 | 1011.9 | 1011.4 | 1010.9 | 1010.4 |
| 77 | $1012 \cdot 5$ | 1012.0 | IOII 5 | 10110 | 1010.5 |
| 78 | $1012 \cdot 6$ | 1012.1 | 1011.5 | 10110 | $1010 \cdot 5$ |
| 79 | 1012. | $1012 \cdot 2$ | 1011.6 | IOIII | 1010.6 |
| 80 | 1012.8 | $1012 \cdot 3$ | 1011.7 | 1011.2 | $1010 \cdot 7$ |
| 81 | 1012.9 |  | 1011.8 | IOII'3 | $1010 \cdot 8$ |
| 82 | 1013.0 | 1012.4 | 1011.9 | 1011.3 | $1010 \cdot 8$ |
| 8 | $1013 \cdot 1$ | 1012.5 | 1012.0 | 1011.4 | 1010.9 |
| 84 | 1013.2 | 1012.6 | 1012.1 | 10115 | 1011.0 |
| 85 | IOI $3^{\cdot 2}$ | 1012.6 | 1012.I | IOII'5 | 1011:0 |
| 86 | 1013.2 | 1012.6 | 1012.1 |  | $\bigcirc$ |
| 87 | $1013 \cdot 3$ | 10 | 1012.2 | 1011.6 | 1011:1 |
| 8 | IOI $3 \cdot 3$ | 1012 | $1012 \cdot 2$ | 10117 | 101I 1 |
| 89 | IOI $3 \cdot 4$ | 101 | 1012.3 | $1011 \%$ | 1011:2 |
| 90 | 1013.5 | 10 | $1012 \cdot 4$ | 1011.8 | 3 |
| O1 | 1 | 1013.0 | 1012.4 | 101199 |  |
| 92 | 1013.5 | IOI 3.0 | 1012.4 | 10119 | 1011:3 |
| 93 | IOI3.6 | $1013 \cdot 1$ | 10125 | 1012.0 | IOII 4 |
| 94 | 1013.7 | 1013.2 | 1012.6 | 1012.1 | 10115 |
| 95 | 1013.7 | 1013.2 | $1012 \cdot 6$ | $1012 \cdot 1$ | 1011.5 |
| , | $1013 \cdot 8$ | 1013.3 | 10127 | 1012.2 | 1011.6 |
| 97 | $1013 \cdot 8$ | $1013 \cdot 3$ | $1012 \cdot 7$ | $1012 \cdot 2$ | 1011.6 |
| 98 | 1013.9 | 1013.4 | 1012.8 | 1012.3 | 1011:7 |
| 99 | IOI3.9 | 1013.4 | 1012.8 | 1012.3 | 1011-7 |
| 100 | $1014{ }^{\circ}$ | 1013:5 | 1012.9 | 1012:4 | 1011.8 |

$41^{\circ}-45^{\circ}$
VOLUMES.

|  | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1000*9 | 1000*9 | $1000 \cdot 8$ | $1000 \cdot 8$ | $1000 \cdot 8$ |
| 2 | 1000*9 | 1000.9 | 1000*9 | 1000'9 | 1000•9 |
| 3 | $1001 \cdot 0$ | 1001.0 | 1000'9 | 1000•9 | 1000*9 |
| 4 | 1001.0 | 1001.0 | 1000*9 | 1000\% | 1000'9 |
| 5 | 1001.0 | $1001 \cdot 0$ | 1000*9 | $1000 \cdot 9$ | $1000 \cdot 9$ |
| 6 | IOOI'I | 1001.0 | 1001.0 | 1000.9 | 1000*9 |
| 7 | IOOI'I | 1001.1 | 1001.0 | 1001.0 | 1001* |
| 8 | 1001.2 | 1001.2 | 1001.1 | 1001.I | 1001•I |
| 9 | 1001 3 | 1001:2 | 1001.2 | 1001.1 | 1001•1 |
| 10 | 1001.4 | 1001.3 | 1001.3 | $1001 \cdot 2$ | $1001 \cdot 2$ |
| 11 | $1001 \cdot 5$ | 1001*4 | 1001.4 | 1001 3 | 1001•3 |
| 12 | 1001.6 | 16015 | 1001.5 | $1001 \cdot 4$ | 1901.4 |
| 13 | $1001 \cdot 7$ | 10017 | 1001.6 | 1001.6 | 1001. 5 |
| 14 | 1001.8 | 1001•8 | 1001.7 | $1001 \cdot 7$ | 1001.6 |
| 15 | 1001 9 | 1001 9 | 1001.8 | 1001•8 | $1001 \cdot 7$ |
| 16 | $1002 \cdot 1$ | $1002 \cdot$ | $1002 \cdot$ | 1001.9 | 1001.8 |
| 17 | $1002 \cdot 3$ | 1002.2 | 1002.1 | $1002 \cdot$ | 1001•9 |
| 18 | 1002.5 | $1002 \cdot 4$ | $1002 \cdot 3$ | $1002 \cdot 2$ | 1002.I |
| 19 | $1002 \cdot 7$ | 1002.6 | $1002 \cdot 4$ | $1002 \cdot 3$ | 1002.2 |
| 20 | 1003.0 | 1002.8 | $1002 \cdot 7$ | 1002.5 | 10 |
| 21 | $1003 \cdot 2$ | $1003^{\circ}$ | 1002.9 | 1002.7 | 1002.6 |
| 22 | 1003.4 | $1003 \cdot 3$ | 1003:I | $1003 \cdot 0$ | 1002.8 |
| 23 | $1003 \cdot 5$ | 1003.4 | $1003 \cdot 2$ | 1003.1 | 1002.9 |
| 24 | $1003 \cdot 7$ | $1003 \cdot 6$ | 1003.4 | 1003.3 | $1003 \cdot 1$ |
| 25 | 1003.9 | 10037 | $1003 \cdot 6$ | 1003.4 | $1003 \cdot 2$ |

## VOLUMES.

| $150$ | 41 | 42 | 43 | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 |  |  |  |  |  |
| 27 | 100 |  | 1003 |  |  |
| 28 | 100 |  |  |  | 1003.7 |
| 29 |  |  | 10043 |  |  |
| 30 |  |  |  |  |  |
| 3 |  |  |  |  |  |
|  |  |  | 1004:9 |  |  |
| 33 | 10 |  | $1005 \cdot 1$ |  |  |
| 34 | 1005 | 100 | 1005.3 | $1005^{\circ}$ | 10047 |
| 35 | 100 |  |  |  |  |
|  |  | 10 |  |  |  |
| 37 |  | 10 | $1005 \%$ | 1005.5 | 1005 |
| 38 | 10 | $1006 \cdot 4$ | 1006 1 | 100 | 10 |
| 3 | 1006.9 | 1006 | 1006.2 | 10 |  |
| 40 |  |  |  |  |  |
| 41 |  | $1006 \cdot 8$ |  |  |  |
| 42 |  | 1006.9 | $1006 \cdot 5$ | 1006.2 |  |
| 43 | 1007 | 1007.0 | $1006 \cdot 7$ | $1006 \cdot 3$ |  |
| 44 | 10075 | $1007^{11}$ | $1006 \cdot 8$ | 1006.4 |  |
| 45 | $100 \%$ |  | 10 |  |  |
| 46 | 100 | $1007 \cdot 4$ | 1007.0 |  |  |
| 48 | $1007^{9} 9$ | 10075 | 1007 1 | $1006 \cdot 7$ | $1006 \cdot 3$ |
| 48 | 1008.0 | $1007 \cdot 6$ | 1007.1 |  | $1006 \cdot 3$ |
| 49 | $1008 \cdot 1$ |  | $1007^{2}$ | 1006 | $1006 \cdot 4$ |
| 50 | $1008 \cdot 2$ | $1007 \cdot 8$ | $1007 \cdot 3$ | 1006.9 | $1006 \cdot 5$ |

$41^{\circ}-45^{\circ}$
VOLUMES.

| $\mid$ | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $1008 \cdot 3$ | $1007 \cdot 8$ | 10074 | $1006 \cdot 9$ | $1006 \cdot 5$ |
| 52 | $1008 \cdot 4$ | 1008.0 | $1007 \cdot 5$ | $1007 \cdot 1$ | 1006.7 |
| 53 | $1008 \cdot 5$ | $1008 \cdot 0$ | $1007 \cdot 6$ | 10071 | 1006.7 |
| 54 | $1008 \cdot 6$ | 1008-1 | $1007 \cdot 7$ | 1007.2 | $1006 \cdot 8$ |
| 55 | $1008 \cdot 6$ | 1008.2 | 1007 7 | 1007.3 | 1006•8 |
| 56 | $1008 \cdot 7$ | $1008 \cdot 2$ | $1007 \cdot 8$ | 1007.3 | $1006 \cdot 9$ |
| 57 | $1008 \cdot 7$ | $1008 \cdot 3$ | $1007^{-8}$ | $1007 \cdot 4$ | 1006•9 |
| 58 | $1008 \cdot 8$ | $1008 \cdot 4$ | 1007.9 | $1007 \cdot 5$ | $1007^{\circ}$ |
| 59 | $1008 \cdot 8$ | $1008 \cdot 4$ | $1007 \cdot 9$ | 1007. 5 | $1007^{\circ}$ |
| 60 | $1008 \cdot 9$ | $1008 \cdot 5$ | 1008.0 | $1007 \cdot 6$ | 10071 |
| 61 | 1009*0 | $1008 \cdot 6$ | 1008•1 | $1007 \cdot 7$ | 1007.2 |
| 62 | $1009^{1}$ | $1008 \cdot 6$ | $1008 \cdot 2$ | $1007 \cdot 7$ | 1007.2 |
| 63 | 1009 1 | $1008 \cdot 7$ | $1008 \cdot 2$ | 1007.8 | 1007.3 |
| 64 | $1009^{\prime 2}$ | $1008 \cdot 7$ | 1008.3 | 1007.8 | 1007.3 |
| 65 | $1009^{2}$ | 1008.7 | 1008.3 | $1007 \cdot 8$ | $1007 \cdot 3$ |
| 66 | 1009 3 | $1008 \cdot 8$ | $1008 \cdot 4$ | 1007.9 | $1007 \cdot 4$ |
| 67 | 1009*4 | 1008.9 | $1008 \cdot 5$ | $1008 \cdot 0$ | 1007.5 |
| 68 | 1009*5 | $1009^{\circ}$ | $1008 \cdot 5$ | $1008 \cdot 0$ | 1007.5 |
| 69 | 1009.5 | 1009* | $1008 \cdot 5$ | 1008.0 | $1007 \cdot 5$ |
| 70 | $1009 \cdot 6$ | 1009 1 | $1008 \cdot 6$ | 1008.1 | $1007 \cdot 6$ |
| 71 | $1009 \cdot 6$ | 1009*1 | $1008 \cdot 6$ | $1008 \cdot 1$ | $1007 \cdot 6$ |
| 72 | $1009 \cdot 7$ | $1009^{-2}$ | $1008 \cdot 7$ | $1008 \cdot 2$ | $1007 \%$ |
| 73 | 1009\%7 | 1009.2 | $1008 \cdot 7$ | $1008 \cdot 2$ | 10077 |
| 74 | 1009•8 | 10093 | $1008 \cdot 8$ | $1008 \cdot 3$ | 1007.8 |
| 75 | $1009 \cdot 8$ | 1009*3 | 1008.8 | 1008.3 | $1007 \cdot 8$ |

$41^{\circ}-45^{\circ}$

## VOLUMES.

|  | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | 44 | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 |  |  | $1008 \cdot 8$ |  |  |
| 77 | 10100 | $1009 \cdot 5$ | $1008 \cdot 9$ |  |  |
| 78 | 10 | 10095 | $1008 \cdot 9$ | $1008 \cdot 4$ |  |
| 79 | 10 | $1009 \cdot 6$ | $1009 \cdot 0$ | $1008 \cdot 5$ |  |
| 80 |  |  |  |  |  |
|  |  |  |  |  |  |
| 82 |  |  | $1009^{2}$ | $1008 \cdot 6$ |  |
| 83 |  |  | $1009 \cdot 3$ | $1008 \cdot 7$ | $1008 \cdot$ |
| 84 | 10 | 1009.9 | 1009.4 |  |  |
| 85 | 10 | 1009.9 |  |  |  |
| 86 |  |  |  | 1008.8 |  |
| 87 | 10 | 1010.0 | $1009 \cdot 4$ |  |  |
| 88 | 10 | 10 | $1009 \cdot 5$ |  |  |
|  | $1010 \cdot 6$ | IOIO | $1009 \cdot 5$ | 1009.0 |  |
| 90 |  |  |  |  |  |
| 91 |  |  | 1009.6 |  |  |
| 92 | 10 | 101 | $1009 \cdot 7$ | 1009 1 |  |
| 93 | 1010 | $1010 \cdot 3$ | 1009 | 1009:2 |  |
| 94 | -1010.9 | $1010 \cdot 3$ | 1009.8 | 1009:2 | 8 |
| 95 |  |  |  |  |  |
| 96 | 10 | 4 | 1009.9 |  |  |
| 97 | 1011 | $1010 \cdot 5$ | $1009 \cdot 9$ | $1009 \cdot 4$ |  |
| 98 | IOIIt | $1010 \cdot 5$ | $1010 \cdot 0$ | $1009 \cdot 4$ |  |
| 99 | 1011.1 | $1010 \cdot 5$ | 1010.0 | $1009^{\circ} 4$ |  |
| 100 | 10112 | $1010 \cdot 6$ | 1010:1 | 1009 | $1008 \cdot 9$ |

$46^{c}-50^{\circ}$
VOLUMES.

| 密䓪 | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $1000 \cdot 8$ | $1000 \cdot 8$ | 1000\% 7 | 1000\% 7 | $1000 \cdot 7$ |
| 2 | 1000*9 | 1000•8 | $1000 \cdot 8$ | $1000 \cdot 7$ | 1000.7 |
| 3 | 1000*9 | $1000 \cdot 8$ | $1000 \cdot 8$ | $1000 \cdot 7$ | $1000 \cdot 7$ |
| 4 | 1000•9 | $1000 \cdot 8$ | $1000 \cdot 8$ | $1000 \cdot 7$ | 1000•7 |
| 5 | 1000.9 | $1000 \cdot 8$ | $1000 \cdot 8$ | $1000 \cdot 7$ | 1000.7 |
| 6 | 1000'9 | $1000 \cdot 8$ | $1000 \cdot 8$ | $1000 \cdot 7$ | 1000.7 |
| 7 | 10010 | $1000 \cdot 9$ | $1000 \cdot 9$ | $1000 \cdot 8$ | $1000 \cdot 8$ |
| 8 | 10010 | 1001.0 | $1000 \cdot 9$ | $1000 \cdot 9$ | 1000.8 |
| 9 | 1001:0 | 10010 | $1000 \cdot 9$ | $1000 \cdot 9$ | $1000 \cdot 8$ |
| 10 | 1001•1 | 10011 | 1001.0 | 10010 | $1000 \cdot 9$ |
| 11 | 1001•2 | 1001'1 | 1001'1 | 1001.0 | $1000 \cdot 9$ |
| 12 | 1001•3 | 1001.2 | 1001.2 | 1001'1 | 1001.0 |
| 13 | 1001.4 | 1001 3 | 1001.3 | 1001.2 | 1001.I |
| 14 | 1001'5 | 1001.4 | 1001.3 | 1001.2 | 1001•1 |
| 15 | 1001.6 | 1001 5 | 10014 | 1001.3 | 1001.2 |
| 16 | 1001•7 | 1001.6 | 10015 | 1001.4 | 1001•3 |
| 17 | 1001.8 | 10017 | $1001 \cdot 6$ | 1001 5 | 1001.4 |
| 18 | $1002 \cdot$ | 10019 | 1001•7 | 1001.6 | 1001•5 |
| 19 | 1002.1 | $1002 \cdot 0$ | 1001.8 | 100177 | 1001.6 |
| 20 | $1002 \cdot 3$ | $1002 \cdot 1$ | $1002 \cdot 0$ | 1001.8 | 1001.7 |
| 21 | $1002 \cdot 4$ | 1002.3 | 1002*1 | 1002.0 | 1001.8 |
| 22 | $1002 \cdot 6$ | 1002.5 | 1002.3 | $1002 \cdot 2$ | $1002 \cdot 0$ |
| 23 | 1002.7 | $1002 \cdot 5$ | $1002 \cdot 4$ | 1002.2 | $1002 \cdot 0$ |
| 24 | 1002.9 | $1002 \%$ | 10025 | 1002.3 | 1002.1 |
| 25 | 1003.0 | $1002 \cdot 8$ | $1002 \cdot 6$ | $1002 \cdot 4$ | 1002.2 |

## VOLUMES.

|  | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 100 |  |  |  |  |
| 27 | $1003 \cdot 3$ | $1003^{\circ} 1$ | $1002 \cdot 8$ | $1002 \cdot 6$ | $1002 \cdot 4$ |
| 28 | $1003 \cdot 5$ | $1003^{2}$ | $1003 \cdot 0$ | $1002 \cdot 7$ | $1002 \cdot 5$ |
| 29 | $1003 \cdot 6$ | $1003 \cdot 3$ | 1003.1 | 1002.8 | $1002 \cdot 6$ |
| 30 | $1003 \cdot 7$ | $1003 \cdot 5$ | $1003 \cdot 2$ | $1003 \cdot 0$ | 1002.7 |
| 31 | $1003 \%$ |  | 1003.4 | $100{ }^{2}$ |  |
| 32 | 1004.1 | 1003. | $1003 \cdot 6$ | $1003 \cdot 3$ | 1003.0 |
| 33 | 1004.2 | 1003.9 | $1003 \cdot 7$ | 1003.4 | $1003 \cdot 1$ |
| 34 | 1004.4 | 1004 | $1003 \cdot 8$ | $1003 \cdot 5$ | $1003 \cdot 2$ |
| 35 | 1004.6 | $1004 \cdot 3$ | $1003 \cdot 9$ | $1003 \cdot 6$ | $1003 \cdot 3$ |
|  | $1004 \%$ |  | $1004^{\circ}$ | $1003 \cdot 7$ | 10034 |
| 37 | 1004*9 | 10045 | 1004.2 | $1003 \cdot 8$ | 1003.5 |
| 38 | $1005^{\circ}$ | 10047 | 1004.3 | 1004.0 | 1003.6 |
| 39 | 1005 1 | 1004 | $1004 \cdot 4$ | 1004.1 | 10037 |
| 40 | $1005^{2}$ | 1004 | $1004 \cdot 5$ | - I | $1003 \cdot 7$ |
| 41 | 1005.3 | 1004\% | 1004.6 | 1004.2 | $1003 \cdot 8$ |
| 42 | $1005 \cdot 4$ | $1005^{\circ}$ | 1004 | 10043 | 1003.9 |
| 43 | $1005 \cdot 5$ | $1005^{\circ} \mathrm{I}$ | 1004.8 | 1004.4 | 1004.0 |
| 44 | $1005 \cdot 6$ | $1005^{2}$ | 1004.8 | 1004.4 | $1004^{\circ}$ |
| 4 | $1005^{\prime} 7$ | 1005.3 | $1004^{\circ}$ | 1004.5 | $4 \cdot 1$ |
| 46 | 1005.8 | 1005.4 | $1004{ }^{\circ} 9$ | 10045 | 1004*1 |
| 47 | 1005\%9 | $1005 \cdot 5$ | $1005^{\circ}$ | 1004-6 | 1004.2 |
| 48 | $1005^{\circ} 9$ | $1005 \cdot 5$ | $1005^{1} 1$ | 10047 | 1004.3 |
| 49 | $1006 \cdot 0$ | $1005 \cdot 6$ | 1005.1 | 10047 | $1004 \cdot 3$ |
| 50 | 1006•1 | 1005.6 | $1005^{\circ}$ | 1004\% | 10043 |

$46^{\circ}-50^{\circ}$

## VOLUMES.

|  | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $1006 \cdot 1$ | 1005.7 | $1005^{2}$ | 1004.8 |  |
| 52 | 1006.3 | 1005.8 | $1005^{\circ} 4$ | 1004.9 | 1004.5 |
| 53 | 1006.3 | 1005.8 | 1005.4 | $1004^{\circ} 9$ | 1004.5 |
| 54 | $1006 \cdot 4$ | $1005 \cdot 9$ | $1005 \cdot 5$ | 1005.0 | 1004.6 |
| 55 | $1006 \cdot 4$ | $1005 \%$ | $1005 \cdot 5$ | $1005^{\circ}$ | 1004.6 |
| 56 | $1006 \cdot 4$ | $1006 \cdot 0$ | 1005.5 | $1005^{\circ} \mathrm{I}$ | 1004.6 |
| 57 | $1006 \cdot 4$ | 1006.0 | 1005.5 | 1005.1 | 1004.6 |
| 58 | $1006 \cdot 5$ | $1006 \cdot 1$ | 1005.6 | 1005.2 | 10047 |
| 59 | $1006 \cdot 5$ | 1006. 1 | $1005 \cdot 6$ | $1005^{\prime 2}$ | 1004 7 |
| 60 | $1006 \cdot 6$ | 1006.2 | 10057 | 1005\%3 | 1004.8 |
| 61 | $1006 \cdot 7$ | $1006 \cdot 2$ | 1005•8 | 1005;3 | 1004.8 |
| 62 | $1006 \cdot 7$ | 1006.2 | $1005 \cdot 8$ | 1005.3 | 1004.8 |
| 63 | 1006.8 | 1006.3 | 1005.9 | 1005.4 | 1004.9 |
| 64 | $1006 \cdot 8$ | 1006.3 | 1005.9 | 1005.4 | 10049 |
| 65 | $1006 \cdot 8$ | $1006 \cdot 3$ | 1005\% | 1005-4 | 1004.9 |
| 66 | $1006 \cdot 9$ | $1006 \cdot 4$ | $1006 \cdot 0$ | $1005 \%$ | $1005^{\circ}$ |
| 67 | $1007^{\circ}$ | 1006.5 | $1006 \cdot 0$ | $1005^{\circ} 5$ | 1005.0 |
| 68 | $1007 \cdot 0$ | 1006. 5 | 1006.0 | 1005.5 | $1005^{\circ}$ |
| 69 | $1007^{\circ}$ | 1006. 5 | 1006•1 | $1005^{6} 6$ | $1005^{\circ} \mathrm{I}$ |
| 70 | 1007 1 | $1006 \cdot 6$ | 1006•1 | $1005 \cdot 6$ | $1005^{-1}$ |
| 71 | 1007 ${ }^{1}$ | 1006.6 | $1006 \cdot 1$ | $1005 \cdot 6$ | 1005 ${ }^{\text {I }}$ |
| 72 | 1007.2 | 1006•7 | 1006.2 | $1005 \cdot 6$ | $1005^{1}$ |
| 73 | $1007^{\circ} 2$ | 1006•7 | 1006. 2 | 10057 | $1005^{2}$ |
| 74 | $1007 \cdot 3$ | $1006 \cdot 8$ | 1006.2 | 1005.7 | $1005^{\prime 2}$ |
| 75 | $1007 \cdot 3$ | 1006•8 | $1006 \cdot 2$ | 1005.7 | $1005^{2}$ |

$46^{\circ}-50^{\circ}$

## VOLUMES.

| \% | 40 | 47 | 48 | 49 | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 |  |  |  |  |  |
| 77 | 100 | 1006 | 1006.3 | $1005 \cdot 8$ |  |
| 78 | 100 | 1006 | 1006.3 | $1005 \cdot 8$ |  |
| 79 | 10 | 100 | $1006 \cdot 4$ | 1005.9 |  |
| 80 | 10 | 10 | $1006 \cdot 4$ |  |  |
|  |  | 100 |  |  |  |
| 82 | $1007 \cdot 6$ | 100 | 1006.5 | 1006.0 |  |
| 8 |  | 10 | 1006 | $1006 \cdot$ |  |
| 8 |  |  | $1006 \cdot 6$ | 1006•1 |  |
| 85 | 10 |  | 10 |  |  |
|  |  |  |  |  |  |
|  | 1007 |  | 1006 | 100 |  |
| 88 | $1007 \cdot 8$ |  | 1006 | 10 |  |
| 89 | 10 |  |  | 100 |  |
| 0 |  |  |  |  |  |
|  |  |  |  |  |  |
| 92 | 10 |  | 1006 | $1006 \cdot 3$ |  |
| 93 | 10 | 100 | 1006 |  |  |
| 94 |  | 100 | 10069 |  |  |
| 95 |  |  | -0, |  |  |
|  | 10 |  |  |  |  |
| 97 | 10 | 1007 | 1007 |  |  |
| 98 | 10 | 10 | $1007 \cdot 1$ |  |  |
|  | $1008 \cdot 2$ | $1007 \cdot 6$ | $1007 \cdot 1$ |  |  |
|  | 100 | $1007 \%$ | $1007 \cdot 2$ | 10 | $1006 \cdot 0$ |

## VOLUMES.

|  | 51 | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 10 | $1000 \cdot 6$ |  |  |  |
| 2 | $1000 \cdot 6$ | $1000 \cdot 6$ | $1000 \cdot 5$ | $1000 \cdot 5$ |  |
| 3 | $1000 \cdot 6$ | $1000 \cdot 6$ | $1000 \cdot 5$ | $1000 \cdot 5$ | $1000 \cdot 4$ |
|  | $1000 \cdot 6$ | $1000 \cdot 6$ | 1000.5 | $1000 \cdot 5$ |  |
| 5 | $1000 \cdot 6$ | 100 | $1000 \cdot 5$ | $1000 \cdot 5$ |  |
|  | 100 | 100 |  |  |  |
|  | $1000 \cdot 7$ | $1000 \cdot 6$ | $1000 \cdot 6$ | $1000 \cdot 5$ |  |
|  | $1000 \cdot 7$ | $1000 \cdot 7$ | $1000 \cdot 6$ | $1000 \cdot 6$ |  |
|  | $1000 \cdot 7$ | $1000 \cdot 7$ | $1000 \cdot 6$ | $1000 \cdot 6$ |  |
| 10 |  | $1000 \cdot 7$ | 100 | $1000 \cdot 6$ |  |
| 11 |  |  |  |  |  |
| 1 | $1000 \cdot 9$ | $1000 \cdot 8$ | $1000 \cdot 7$ | $1000 \cdot 6$ |  |
| 1 | 1001 | 1000.9 | 1000.8 | $1000 \cdot 7$ |  |
| 1 | 10 | $1000 \cdot 9$ | $1000 \cdot 8$ | 10007 | 1000.6 |
| 15 |  |  | 100 | $1000 \cdot 7$ |  |
| 16 | 10 | 1001.1 | $1000 \cdot 9$ |  |  |
| 17 | 10013 | 1001.1 | 1001 | $1000 \cdot 8$ |  |
| 18 | $1001 \cdot 4$ | 1001 | $1001 \cdot 1$ | $1000 \cdot 9$ | $1000 \cdot 8$ |
| 19 | 1001.4 | 10013 | $1001 \cdot 1$ | 1001.0 | $1000 \cdot 8$ |
| 20 |  | 10014 |  | 1001.1 | 1000.9 |
| 2 |  | 1001 | 10013 |  |  |
| 22 | 1001.8 | 10016 | $1001 \cdot 4$ | 1001.2 | $1001 \cdot$ |
| 23 | 1001.8 | 1001.6 | 1001.5 | $1001 \cdot 3$ | 1001.1 |
| 24 | 10019 | $1001 \cdot 7$ | $1001 \cdot 5$ | 10013 | 1001-1 |
| 25 | $1002 \cdot 0$ | 1001.8 | 1001.5 | 10013 | 1001-1 |

## VOLUMES.

| \% | 51 | 52 | 53 | 54 | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 |  |  |  |  |  |
| 27 | 10 | 1001 | 100 |  |  |
| 28 | 10 | 1002 | 1001 | 10015 | $1001 \cdot 3$ |
| 29 |  | 10 | 100 |  | 1001 3 |
| 30 |  | $1002 \cdot 2$ | 10 | 10017 |  |
| 31 | 10 | 10 |  |  |  |
| 32 |  | 100 | $1002 \cdot 1$ | 100 |  |
| 33 |  |  | 10 | 1001.8 |  |
| 34 | 1002.9 |  | 1002.2 | 1001.9 |  |
| 35 | 1003.0 |  | 10 | $1002 \cdot$ |  |
| 36 |  |  | 10 | $1002 \cdot 0$ |  |
|  | 1003 | 10 |  | $1002 \cdot 1$ |  |
| 38 | 1003 | 10 | 10 | 1002.2 |  |
| 3 | $1003 \cdot 3$ | 1003.0 | 1002 | 1002 |  |
| 40 | $1003 \cdot 3$ |  | 10 | 100 |  |
| 41 | 1003 |  |  |  |  |
| 42 | 1003 | $1003^{1} 1$ | 10 |  |  |
| 43 | $1003 \cdot 6$ | 1003.2 | 10 |  |  |
| 44 | $1003 \cdot 6$ | 1003.2 | 100 | 10 |  |
| 45 | 1003.7 | 1003 | 10 |  |  |
| 46 | 1 | $1003 \cdot 3$ | 1002.9 |  |  |
| 47 | $1003 \cdot 8$ | 1003.4 | $1002 \cdot 9$ | $1002 \cdot 5$ | - |
| 48 | 1003.9 | 1003.4 | 1003.0 | $1002 \cdot 5$ | 1002.1 |
| 49 | 1003.9 | $1003 \cdot 5$ | 1003.0 | $1002 \cdot 6$ | 1002.2 |
| 50 | 10 | 10 | 1003 | 10 | $1002 \cdot 2$ |

$51^{\circ}-55^{\circ}$ VOLUMES.

| 突㵄 | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 1004.0 | $1003 \cdot 5$ | 1003.1 | $1002 \cdot 6$ | 1002.2 |
| 52 | 1004.0 | $1003 \cdot 6$ | 1003.1 | $1002 \cdot 7$ | $1002 \cdot 2$ |
| 53 | 1004.1 | $1003 \cdot 6$ | $1003 \cdot 2$ | $1002 \cdot 7$ | $1002 \cdot 3$ |
| 54 | 1004.1 | $1003 \%$ | $1003 \cdot 2$ | 1002.8 | 1002.3 |
| 55 | 1004.1 | 10037 | $1003 \cdot 2$ | 1002.8 | 1002.3 |
| 56 | 1004.1 | $1003 \cdot 7$ | $1003 \cdot 2$ | $1002 \cdot 8$ | 1002.3 |
| 57 | 1004* 1 | $1003 \%$ | $1003 \cdot 2$ | 1002.8 | $1002 \cdot 3$ |
| 58 | 1004.2 | 1003.8 | $1003 \cdot 3$ | $1002 \cdot 9$ | 1002.4 |
| 59 | 1004.2 | $1003 \cdot 8$ | $1003 \cdot 3$ | 1002.9 | $1002 \cdot 4$ |
| 60 | 10043 | $1003 \cdot 8$ | $1003 \cdot 4$ | $1002 \cdot 9$ | $1002 \cdot 4$ |
| 61 | 10043 | $1003 \cdot 8$ | 1003.4 | 1002.9 | $1002 \cdot 4$ |
| 62 | 10043 | $1003 \cdot 8$ | $1003 \cdot 4$ | 1002.9 | $1002 \cdot 4$ |
| 63 | 10044 | 1003.9 | 1003.4 | $1002 \cdot 9$ | $1002 \cdot 4$ |
| 64 | 1004.4 | 1003.9 | $1003 \cdot 5$ | $1003 \cdot 0$ | $1002 \cdot 5$ |
| 65 | $1004{ }^{4}$ | 1003.9 | $1003 \cdot 5$ | $1003 \cdot 0$ | $1002 \cdot 5$ |
| 66 | 10045 | 1004.0 | 1003.5 | $1003{ }^{\circ}$ | 1002.5 |
| 67 | 1004. 5 | $1004{ }^{\circ}$ | $1003 \cdot 5$ | $1003^{\circ} 0$ | 1002 |
| 68 | 10045 | 1004.0 | $1003 \cdot 5$ | $1003^{\circ} 0$ | $1002 \cdot 5$ |
| 69 | $1004 \cdot 6$ | 1004.1 | $1003 \cdot 5$ | 1003.0 | $1002 \cdot 5$ |
| 70 | 1004.6 | 1004.1 | $1003 \cdot 6$ | $1003 \cdot 1$ | $1002 \cdot 6$ |
| 71 | 1004.6 | 1004. 1 | $1003 \cdot 6$ | 1003.1 | $1002 \cdot 6$ |
| 72 | 1004.6 | 1004.1 | 1003.6 | $1003 \cdot 1$ | $1002 \cdot 6$ |
| 73 | 10047 | 1004.2 | $1003 \cdot 6$ | 1003.1 | $1002 \cdot 6$ |
| 74 | 1004'7 | 1004.2 | $1003 \cdot 6$ | 1003.1 | $1002 \cdot 6$ |
| 75 | 1004 ${ }^{\prime} 7$ | 1004.2 | $1003 \cdot 6$ | $1003 \cdot 1$ | $1002 \cdot 6$ |

$51^{\circ}-55^{\circ}$

## VOLUMES.

|  | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 1004.8 | 1004.2 | $1003 \cdot 7$ | $1003 \cdot 1$ | 1 |
| 77 | 1004.8 | $1004 \cdot 3$ | $1003 \cdot 7$ | $1003 \cdot 2$ | $1002 \cdot 7$ |
| 78 | 1004.8 | 1004.3 | 1003.7 | $1003 \cdot 2$ | 1002.7 |
| 79 | 1004.9 | 1004.3 | $1003 \cdot 8$ | $1003 \cdot 2$ | $1002 \cdot 7$ |
| 80 | IOO4.9 | 1004*3 | $1003 \cdot 8$ | 1003.2 | 10 |
| 81 | 1004.9 | 1004.3 | $1003 \cdot 8$ | 1003.2 |  |
| 82 | 10049 | 1004.3 | $1003 \cdot 8$ | $1003 \cdot 3$ | $1002 \cdot 7$ |
| 83 | $1005^{\circ}$ | 1004.4 | 1003.9 | $1003 \cdot 3$ |  |
| 84 | $1005^{\circ} 0$ | 1004.4 | 1003.9 | $1003 \cdot 3$ |  |
| 5 | $1005^{\circ}$ | 1004.4 | 1003.9 | $1003 \cdot 3$ |  |
| 86 | $1005^{\circ}$ | 1004.5 | 1003.9 | 1003.4 |  |
| 87 | $1005^{\circ}$ | 1004.5 | 1003.9 | $1003 \cdot 4$ | 10 |
| 88 | $1005^{\circ}$ | 1004.5 | 1003.9 | 1003.4 |  |
| 89 | $1005^{\circ}$ | 1004.5 | 1003.9 | 1003.4 |  |
| 90 | 1005.1 | 1004.5 | $1004{ }^{\circ}$ | 1003.4 |  |
| 91 | 1005.1 | 1004.6 | 1004.0 | 1003.5 |  |
| 92 | $1005^{1} \mathrm{I}$ | $1004 \cdot 6$ | 1004.0 | 1003.5 |  |
| 93 | 1005.1 | 1004.6 | $1004{ }^{\circ}$ | 1003.5 |  |
| 94 | $1005^{\circ} 2$ | 1004.6 | 1004. I | 1003.5 | -9 |
| 95 | $1005^{2}$ | 1004.6 | 1004.I | 1003.5 |  |
| 96 | $1005^{2}$ | 1004.6 | 1004.1 | 100:* | , 9 |
| 97 | $1005^{\prime} 3$ | $1004 \cdot 7$ | 1004.1 | 1003.j | 1002.9 |
| 98 | $1005 \cdot 3$ | $1004 \cdot 7$ | $1004^{2}$ | 1003.6 | $1003^{\circ}$ |
| 99 | $1005 \cdot 3$ | $1004 \%$ | 1004.2 | $1003 \cdot 6$ | 1003.0 |
| 100 | $1005 \cdot 4$ | 1004.8 | $1004{ }^{2}$ | $1003 \cdot 6$ | 1003.0 |

$56^{\circ}-60^{\circ}$
VOLUMES.

| 旡号 | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 2$ | 1000.1 | $\cdot 0$ |
| 2 | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 2$ | IOOO'I | $1000^{\circ}$ |
| 3 | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 2$ | 1000.1 | $0 \cdot 0$ |
| 4 | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 2$ | 1000.1 | $1000 \cdot 0$ |
| 5 | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 2$ | 1000.1 | $1000 \cdot 0$ |
| 6 | $1000 \cdot 3$ | 1000.2 | $1000 \cdot 2$ | $1000 \cdot 1$ | - |
| 7 | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 2$ | 1000.1 | $1000 \cdot 0$ |
| 8 | $1000 \cdot 4$ | $1000 \cdot 3$ | $1000 \cdot 2$ | 1000'1 | $1000 \cdot 0$ |
| 9 | $1000 \cdot 4$ | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 1$ | $1000 \cdot 0$ |
| 10 | $1000 \cdot 4$ | $1000 \cdot 3$ | $1000 \cdot 2$ | 1000'1 | $1000 \cdot 0$ |
| 11 | $1000 \cdot 4$ | $1000 \cdot 3$ | $1000 \cdot 2$ | 1000.1 | $1000 \cdot 0$ |
| 12 | $1000 \cdot 4$ | $1000 \cdot 3$ | $1000 \cdot 2$ | $1000 \cdot 1$ | $1000 \cdot 0$ |
| 13 | $1000 \cdot 5$ | $1000 \cdot 4$ | $1000 \cdot 2$ | 1000'1 | $1000 \cdot 0$ |
| 1 | $1000 \cdot 5$ | $1000 \cdot 4$ | $1000 \cdot 2$ | 1000'1 | $1000 \cdot 0$ |
| 15 | $1000 \cdot 5$ | $1000 \cdot 4$ | $1000 \cdot 2$ | 1000'1 | $1000 \cdot 0$ |
| 16 | $1000 \cdot 6$ | $1000 \cdot 4$ | $1000 \cdot 3$ | 1000.1 | $1000 \cdot 0$ |
| 17 | $1000 \cdot$ | $1000 \cdot 4$ | $1000 \cdot 3$ | 1000.1 | $1000 \cdot 0$ |
| 18 | $1000 \cdot 6$ | $1000 \cdot 5$ | $1000 \cdot 3$ | $1000 \cdot 1$ | $000 \cdot$ |
| 19 | $1000 \cdot 6$ | $1000 \cdot 5$ | $1000 \cdot 3$ | $1000 \cdot 1$ | $1000 \cdot 0$ |
| 20 | $1000 \cdot 7$ | $1000 \cdot 5$ | $1000 \cdot 4$ | $1000 \cdot 2$ | $1000 \cdot 0$ |
| 21 | 1000.8 | 1000 | $1000 \cdot 4$ | $1000 \cdot 2$ | $1000 \cdot 0$ |
| 22 | $1000 \cdot 8$ | $1000 \cdot 6$ | $1000 \cdot 4$ | $1000 \cdot 2$ | $1000 \cdot 0$ |
| 23 | $1000 \cdot 9$ | $1000 \cdot 7$ | $1000 \cdot 4$ | $1000 \cdot 2$ | $1000 \cdot 0$ |
| 24 | $1000 \cdot 9$ | $1000 \cdot 7$ | $1000 \cdot 4$ | $1000 \cdot 2$ | $1000 \cdot 0$ |
| 25 | $1000 \cdot 9$ | $1000 \cdot 7$ | $1000 \cdot 4$ | $1000 \cdot 2$ | $1000 \cdot 0$ |

$56^{\circ}-60^{\circ}$
VOLUMES.

|  | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 1001.0 | 1000\% 7 | 1000 | 1000.2 | 1000*0 |
| 27 | 10010 | $1000 \cdot 7$ | $1000 \cdot 5$ | $1000 \cdot 2$ | $1000 \cdot 0$ |
| 28 | 1001.0 | $1000 \cdot 8$ | $1000 \cdot 5$ | $1000 \cdot 3$ | $1000 \cdot 0$ |
| 29 | 1001.0 | $1000 \cdot 8$ | $1000 \cdot 5$ | $1000 \cdot 3$ | $1000 \cdot 0$ |
| 30 | 1001'I | $1000 \cdot 8$ | $1000 \cdot 6$ | $1000 \cdot 3$ | 10 |
| 31 | 1001'1 | $1000 \cdot 8$ | $1000 \cdot 6$ | 1000*3 | 10 |
| 32 | 1001.2 | 1000*9 | $1000 \cdot 6$ | $1000 \cdot 3$ | $1000 \cdot 0$ |
| 33 | 1001.2 | $1000 \cdot 9$ | $1000 \cdot 6$ | 1000*3 | 1000:0 |
| 34 | 1001.3 | 1001.0 | $1000 \cdot 6$ | 1000 3 | 1000* |
| 35 | $1001 \cdot 4$ | 10010 | $1000 \cdot 7$ | 1000'3 | $1000 \cdot$ |
| 36 | 1001.4 | 1001.0 | $1000 \cdot 7$ | $1000 \cdot 3$ | $\bigcirc$ |
| 37 | 1001.4 | 1001'I | 1000\% 7 | $1000 \cdot 4$ | 1000 |
| 38 | 1001.5 | 1001'I | $1000 \cdot 8$ | $1000 \cdot 4$ | $1000 \cdot$ |
| 39 | 1001.5 | 1001'I | $1000 \cdot 8$ | 1000.4 | $1000 \cdot 0$ |
| 40 | 1001.5 | 1001•1 | $1000 \cdot 8$ | $1000 \cdot 4$ | $1000 \cdot 0$ |
| 4 | 1001.5 | 1001•I | $1000 \cdot 8$ | $1000 \cdot 4$ | 100 |
| 42 | 1001.6 | 1001.2 | $1000 \cdot 8$ | $1000 \cdot 4$ | $1000 \cdot$ |
| 43 | 1001.6 | 1001.2 | $1000 \cdot 8$ | $1000 \cdot 4$ | 1000* |
| 44 | 1001.6 | 1001.2 | $1000 \cdot 8$ | $1000 \cdot 4$ | $1000 \cdot 0$ |
| 45 | $1001 \cdot 7$ | $1001 \cdot 3$ | $1000 \cdot 8$ | $1000 \% 4$ | 1000*0 |
| 46 | $1001 \cdot 7$ | 1001.3 | $1000 \cdot 8$ | $1000 \cdot 4$ | $1000 \cdot 0$ |
| 47 | 1001•7 | 1001.3 | $1000 \cdot 8$ | $1000 \cdot 4$ | $1000 \cdot 0$ |
| 48 | $1001 \cdot 7$ | 1001.3 | $1000 \cdot 8$ | $1000 \cdot 4$ | $1000 \cdot$ |
| 49 | 1001•8 | 1001.3 | $1000 \cdot 9$ | $1000 \cdot 4$ | $1000 \cdot$ |
| 50 | 1001•8 | 1001.3 | $1000 \cdot 9$ | $1000 \cdot 4$ | $1000 \cdot$ |

$56^{\circ}-60^{\circ}$
VOLUMES.

|  | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 1001.8 | 1001•3 | 1000*9 | $1000 \cdot 4$ | $1000 \cdot 0$ |
| 52 | 1001.8 | 1001•3 | $1000 \cdot 9$ | $1000 \cdot 4$ | $1000 \cdot$ |
| 53 | 1001.8 | $1001 \cdot 4$ | $1000 \cdot 9$ | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 54 | $1001 \cdot 8$ | $1001 \cdot 4$ | $1000 \cdot 9$ | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 55 | 1001.8 | 10014 | $1000 \cdot 9$ | $1000 \cdot 5$ | 1000 |
| 56 | 1001.8 | 1001.4 | 1000*9 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 57 | 1001.8 | 10014 | $1000 \cdot 9$ | $1000 \cdot 5$ | $1000 \cdot$ |
| 58 | 1001•9 | 1001.4 | 10010 | $1000 \cdot 5$ | 1000\% |
| 59 | 1001.9 | 1001.4 | 1001.0 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 60 | 1001.9 | 1001.4 | 1001.0 | $1000 \cdot 5$ | $1000 \cdot$ |
| 61 | 1001'9 | 1001.4 | $1001 \cdot 0$ | $1000 \cdot 5$ | $0 \cdot 0$ |
| 62 | 1001.9 | 10014 | 1001.0 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 63 | 1001.9 | 10014 | $1001^{\circ} 0$ | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 64 | $1002 \cdot$ | $1001 \cdot 5$ | 1001.0 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 65 | 1002.0 | 10015 | 10010 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 66 | $1002 \cdot 0$ | $1001 \cdot 5$ | 1001.0 | $1000 \cdot 5$ | 1000.0 |
| 67 | 1002.0 | 1001.5 | 10010 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 68 | 1002.0 | 1001. 5 | 1001.0 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 69 | $1002 \cdot 0$ | $1001 \cdot 5$ | 10010 | $1000 \cdot 5$ | $1000 \cdot$ |
| 70 | $1002 \cdot 1$ | 1001.6 | 1001.0 | $1000 \cdot 5$ | $1000 \cdot$ |
| 71 | $1002 \cdot 1$ | 1001. 6 | 1001.0 | $1000 \cdot 5$ | 1000 |
| 72 | 1002.1 | 1001.6 | 1001.0 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 73 | 1002.I | 1001.6 | 1001.0 | $1000 \cdot 5$ | $1030 \cdot$ |
| 74 | 1002.I | 1001. 6 | 1001.0 | $1000 \cdot 5$ | $1030 \cdot$ |
| 75 | $1002 \cdot 1$ | 1001.6 | $1001{ }^{\circ}$ | $1000 \cdot 5$ | $1000 \cdot$ |

$56^{\circ}-60^{\circ}$

## VOLUMES.

|  | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $1002 \cdot 1$ | 1001•6 | 1001 ${ }^{\circ}$ | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 77 | $1002 \cdot 2$ | 1001.6 | 1001.1 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 78 | $1002 \cdot 2$ | 1001•6 | 1001'I | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 79 | $1002 \cdot 2$ | 1001.6 | 1001'I | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 80 | $1002 \cdot 2$ | 1001.6 | 1001'I | $1000 \cdot 5$ | 1000* |
| 81 | 1002.2 | 100 | 1001'1 | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 82 | $1002 \cdot 2$ | 1001.6 | 1001'I | $1000 \cdot 5$ | $1000 \cdot 0$ |
| 83 | 1002.2 | 1001.7 | 1001.1 | 1000.6 | $1000 \cdot 0$ |
| 84 | $1002 \cdot 2$ | 10017 | 1001'1 | $1000 \cdot 6$ | $1000 \cdot 0$ |
| 85 | $1002 \cdot 2$ | 1001•7 | 1001'1 | $1000 \cdot 6$ | $\bigcirc$ |
| 8 | 1002 | 1001'7 | 1001'I | $1000 \cdot 6$ | - |
| 87 | $1002 \cdot 2$ | 10017 | 1001.1 | $1000 \cdot 6$ | $1000 \cdot 0$ |
| 88 | $1002 \cdot 2$ | 1001.7 | 1001.1 | $1000 \cdot 6$ | 1000.0 |
| 89 | $1002 \cdot 2$ | 1001.7 | 1001.I | $1000 \cdot 6$ | $1000 \cdot$ |
| 90 | $1002 \cdot 2$ | 10017 | 1001.1 | $1000 \cdot 6$ | $1000 \cdot$ |
| 1 | $1002 \cdot 3$ | 100177 | 1001.2 | $1000 \cdot 6$ |  |
| 92 | $1002 \cdot 3$ | 1001•7 | 1001.2 | $1000 \cdot 6$ | 100̇0 |
| 93 | $1002 \cdot 3$ | 1001 7 | 1001.2 | $1000 \cdot 6$ | $\cdot$ |
| 94 | 1002.3 | 1001'7 | 1001.2 | $1000 \cdot 6$ | $1000 \cdot$ |
| 9 | $1002 \cdot 3$ | 1001'7 | 1001.2 | $1000 \cdot 6$ |  |
| 96 | $1002 \cdot 3$ | 1001•7 | 1001.2 | 1000.6 | $0 \cdot 0$ |
| 97 | 1002.3 | 1001.7 | $1001 \cdot 2$ | $1000 \cdot 6$ | $1000 \cdot 0$ |
| 98 | $1002 \cdot 4$ | 1001.8 | 1001.2 | $1000 \cdot 6$ | $1000 \cdot$ |
| 99 | $1002 \cdot 4$ | 1001.8 | $1001 \cdot 2$ | $1000 \cdot 6$ | $1000 \cdot 0$ |
| 100 | 1002.4 | 1001.8 | 1001.2 | $1000 \cdot 6$ | 1000* |

$61^{\circ}-65^{\circ}$
VOLUMES.

|  | $61^{\circ}$ | $62^{\circ}$ | $6.3^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 999.9 | $999 \cdot 8$ | 999*7 | $999 \cdot 6$ | 999.5 |
| 2 | 999.9 | 999.8 | 9997 | $999 \cdot 6$ | 999.5 |
| 3 | 999.9 | 999*8 | 9997 | $999 \cdot 6$ | 999.5 |
| 4 | 999*9 | 999*8 | 999*7 | $999 \cdot 6$ | 9995 |
| 5 | 999.9 | 999*8 | 9997 | $999 \cdot 6$ | 999'5 |
| 6 | 999*9 | 999.8 | 999*7 | 999.6 | 999.5 |
| 7 | 999*9 | $999 \cdot 8$ | 999 7 | 999.6 | 9995 |
| 8 | 999*9 | 999.8 | 999.6 | $999 \cdot 5$ | 999.4 |
| 9 | 999*9 | 999•8 | 999.6 | $999 \cdot 5$ | 999.4 |
| 10 | 999*9 | 999•8 | $999 \cdot 6$ | 999.5 | 999.4 |
| 11 | 999*9 | 999.8 | 999.6 | 999.5 | 999.4 |
| 12 | 999*9 | $999 \cdot 7$ | 999.6 | $999 \cdot 5$ | 999.4 |
| 13 | 999*9 | 999*7 | 999.6 | 999*5 | 999*3 |
| 14 | 999*9 | 999*7 | 999*6 | 999.4 | 999*3 |
| 15 | $999 \cdot 8$ | 999*7 | 999.5 | 999.4 | 999.2 |
| 16 | 999.8 | 999*7 | 999.5 | $999 * 4$ | 999*2 |
| 17 | 999.8 | 999*7 | 999.5 | 999.3 | 999*2 |
| 18 | 999.8 | 999.6 | 999'5 | 999*3 | 999•I |
| 19 | 999.8 | 999.6 | 999.5 | 999*3 | 999*I |
| 20 | $999 \cdot 8$ | 999.6 | 999.4 | $999 \cdot 2$ | $999^{\circ}$ |
| 21 | 999.8 | 999.6 | 999.4 | 999*2 | $999{ }^{\circ}$ |
| 22 | 999:8 | 999.6 | 999*3 | 999*1 | $998 \cdot 9$ |
| 23 | 999.8 | 999.5 | 999*3 | 999.I | $998 \cdot 9$ |
| 24 | 999.8 | 999.5 | 999*3 | 999 ${ }^{\text {I }}$ | $998 \cdot 8$ |
| 25 | 999.8 | 999.5 | 999.3 | $999^{\circ}$ | 998.8 |

$61^{\circ}-65^{\circ}$
VOLUMES.

|  | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 999:8 | 999.5 | 999*3 | $999{ }^{\circ}$ | 998.8 |
| 27 | $999 \cdot 7$ | 999.5 | 999*2 | 999.0 | $998 \cdot 7$ |
| 28 | 9997 | 999.5 | 999.2 | 998.9 | 998.7 |
| 29 | 999\%7 | 999.4 | 999.2 | 998.9 | 998.6 |
| 30 | 9997 | 999.4 | 999•1 | 998.8 | $998 \cdot 6$ |
| 31 | 999*7 | 999.4 | 999* 1 | 998.8 | 998.5 |
| 32 | 999•7 | 999.4 | 999.1 | $998 \cdot 8$ | 998.5 |
| 33 | $999 \cdot 7$ | 999.4 | 999.0 | 998.7 | 998.4 |
| 34 | 9997 | 999.4 | 9990 | 998.7 | $998 \cdot 3$ |
| 35 | 999.7 | 999*3 | $999{ }^{\circ}$ | $998 \cdot 6$ | 998.3 |
| 36 | 999.6 | 999*3 | $998 \cdot 9$ | $998 \cdot 6$ | 998.2 |
| 37 | 999.6 | 999'3 | 998.9 | 998.6 | 998.2 |
| 38 | 999.6 | 999:2 | 998.9 | $998 \cdot 5$ | 998.I |
| 39 | 999.6 | 9992. | 998.9 | $998 \cdot 5$ | 998.1 |
| 40 | 999.6 | 999:2 | 998.8 | $998 \cdot 5$ | 988 |
| 41 | 999.6 | 999:2 | $998 \cdot 8$ | $998 \cdot 4$ |  |
| 42 | 999.6 | 999:2 | 998.8 | 998.4 | 998.0 |
| 43 | 999.6 | 999:2 | 998.8 | 998.4 | 998.0 |
| 44 | 999.6 | 999:2 | $998 \cdot 8$ | 998.4 | 997*9 |
| 45 | 9996 | 999.2 | $998 \cdot 7$ | 998.3 | 997.9 |
| 46 | 999.6 | 999*1 | $998 \cdot 7$ | 998.3 | 997*9 |
| 47 | 999.6 | 999.1 | $998 \cdot 7$ | 998.3 | 997* |
| 48 | 999.6 | 999.1 | $998 \cdot 7$ | 998.3 | $997 \cdot 8$ |
| 49 | $999 \cdot 6$ | 999.1 | $998 \cdot 7$ | 998.2 | $997 \cdot 8$ |
| 50 | $999 \cdot 6$ | 999-1 | $998 \cdot 7$ | $998 \cdot 2$ | $997 \cdot 8$ |

## $61^{\circ}-65^{\circ}$

VOLUMES.

|  | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 999.6 | 999* 1 | 998•7 | 998.2 | 997.8 |
| 52 | 999'5 | 999*' | $998 \cdot 6$ | 998.2 | 997.7 |
| 53 | 999*5 | 999*1 | $998 \cdot 6$ | 998.2 | 997.7 |
| 54 | 999.5 | 999* 1 | $998 \cdot 6$ | 998.1 | 997* |
| 55 | 999.5 | 999 ${ }^{\text {I }}$ | 998.6 | 998.I | $997 \cdot 7$ |
| 56 | 999.5 | 999* 1 | $998 \cdot 6$ | 998•I | 997.6 |
| 57 | 999.5 | 999 ${ }^{\text {I }}$ | $998 \cdot 6$ | 998.1 | 997.6 |
| 58 | 999.5 | $999{ }^{\circ}$ | $998 \cdot 6$ | 998.I | 997*6 |
| 59 | 999'5 | 9990 | $998 \cdot 6$ | 998.I | $997 \cdot 6$ |
| 60 | 999.5 | $999{ }^{\circ}$ | 998.6 | 998. 1 | 997.6 |
| 61 | 999.5 | $999^{\circ}$ | $998 \cdot 5$ | 998.0 | 997.6 |
| 62 | 999.5 | $999^{\circ}$ | 998.5 | $998 \cdot 0$ | 997.5 |
| 63 | 999.5 | $999^{\circ}$ | 998.5 | $998 \cdot 0$ | 997.5 |
| 64 | 999.5 | 9990 | $998 \cdot 5$ | 998.0 | 997.5 |
| 65 | 999'5 | $999^{\circ}$ | 998.5 | $998 \cdot 0$ | $997 \cdot 5$ |
| 66 | 999*5 | 9990 | $998 \cdot 5$ | $998 \cdot 0$ | 997.5 |
| 67 | 999.5 | $999^{\circ}$ | $998 \cdot 5$ | 998.0 | $997 \cdot 5$ |
| 68 | 999.5 | $999^{\circ}$ | $998 \cdot 5$ | $997{ }^{\circ} 9$ | $997 \cdot 4$ |
| 69 | 999.5 | $999^{\circ}$ | $998 \cdot 5$ | $997 * 9$ | 997.4 |
| 70 | 999.5 | $999{ }^{\circ}$ | $998 \cdot 5$ | 997*9 | $997 \cdot 4$ |
| 71 | 999*5 | $999{ }^{\circ}$ | 998.4 | 997.9 | $997 * 4$ |
| 72 | 999.5 | $999{ }^{\circ}$ | 998.4 | 997.9 | $997 \cdot 4$ |
| 73 | 999.5 | $998 \cdot 9$ | 998.4 | 997.9 | $997 \cdot 4$ |
| 74 | 999.5 | $998 \cdot 9$ | 998.4 | 997.9 | $997 \cdot 4$ |
| 75 | 999.5 | $998 \cdot 9$ | $998 \cdot 4$ | 997.9 | 997*3 |

$61^{\circ}-65^{\circ}$
VOLUMES.

| 200 | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 999.5 | $998 \cdot 9$ | $998 \cdot 4$ | $997 * 9$ | 9973 |
| 77 | 999.5 | $998 \cdot 9$ | $998 \cdot 4$ | 997.8 | 997*3 |
| 78 | 999.5 | $998 \cdot 9$ | $998 \cdot 4$ | 997.8 | 9973 |
| 79 | 999.5 | $998 \cdot 9$ | $998 \cdot 4$ | $997 \cdot 8$ | 9973 |
| 80 | 999.5 | 998.9 | $998 \cdot 4$ | $997 \cdot 8$ | 997.3 |
| 81 | 99905 | 998.9 | $998 \cdot 4$. | 997*8 | 9973 |
| 82 | 999.5 | $998 \cdot 9$ | $998 \cdot 4$ | $997 \cdot 8$ | 997*3 |
| 83 | 999.4 | $998 \cdot 9$ | 998•3 | $997 \cdot 8$ | 997.2 |
| 84 | $999 \cdot 4$ | $998 \cdot 9$ | $998 \cdot 3$ | 997.8 | 997.2 |
| 85 | 999.4 | 998.9 | 998.3 | $997 \cdot 8$ | $997 \cdot 2$ |
| 86 | 999.4 | $998 \cdot 9$ | $998 \cdot 3$ | 997.8 | $997^{\circ} 2$ |
| 87 | $999 \cdot 4$ | $998 \cdot 9$ | $998 \cdot 3$ | $997 \cdot 7$ | 997*2 |
| 88 | 999*4 | $998 \cdot 9$ | $998 \cdot 3$ | $997 \cdot 7$ | 997*2 |
| 89 | 999.4 | $998 \cdot 9$ | $998 \cdot 3$ | $997 *$ | 997* 1 |
| 90 | $999 \cdot 4$ | 998.9 | $998 \cdot 3$ | $997 \cdot 7$ | 997•1 |
| 91 | 999.4 | $998 \cdot 8$ | $998 \cdot 3$ | 997*7 | $997{ }^{1}$ |
| 92 | $999 \cdot 4$ | $998 \cdot 8$ | $998 \cdot 3$ | $997 \times 7$ | 997. 1 |
| 93 | $999 \cdot 4$ | $998 \cdot 8$ | 998.3 | $997 \cdot 7$ | 997•1 |
| 94 | $999 \cdot 4$ | $998 \cdot 8$ | 998.3 | $997 \cdot 7$ | 997. 1 |
| 95 | 999.4 | $998 \cdot 8$ | 998.2 | 997•7 | 9971 |
| 96 | $999{ }^{\circ} 4$ | $998 \cdot 8$ | 998.2 | 997* | 997* |
| 97 | 999.4 | $998 \cdot 8$ | $998 \cdot 2$ | $997 \cdot 6$ | 997* 1 |
| 98 | $999 \cdot 4$ | $998 \cdot 8$ | $998 \cdot 2$ | $997 \cdot 6$ | $997^{\circ} \mathrm{I}$ |
| 99 | 999*4 | 998.8 | 998.2 | 997.6 | 997.0 |
| 100 | 999.4 | $998 \cdot 8$ | $998 \cdot 2$ | $997 \cdot 6$ | $997{ }^{\circ}$ |

$66^{\circ}-70^{\circ}$
VOLUMES.

|  | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 999.4 | 999*3 | 999.2 | 999•1 |  |
|  | 999.4 | 9993 | 999.2 | 999-1 |  |
| 3 | 999.4 | 9993 3 | 999.2 | 999** | 998.9 |
| 4 | 999.4 | 9993 | 999*2 | 99900 | 998.9 |
| 5 | 999.4 | 9993 | 999*I | $999^{\circ}$ | 998.9 |
| 6 | 999.4 | 999*2 | 999•1 | 999.0 |  |
| 7 | 999*3 | 999.2 | 999. | $999{ }^{\circ}$ |  |
| 8 | 999*3 | 999.2 | $999^{\circ}$ | $998 \cdot 9$ | $8 \cdot 8$ |
| 1 | 9993 3 | 999•1 | 9990 |  | 998.8 |
| 10 | 999*3 | 999•1 | 9990 |  | 908.7 |
| 11 | 999.2 | 999.1 | 999** | 998.8 | 99 |
| 12 | 999.2 | 999. 1 | 998.9 | $998 \cdot 8$ | 998.6 |
| 13 | 999*2 | 9990 | 998.9 | $998 \cdot 7$ | $998 \cdot 6$ |
| 14 | 999* 1 | 9990 | 998.8 |  | 998.5 |
| 15 | $999^{\circ}$ | $998 \cdot 9$ | $998 \cdot 7$ | 99 |  |
| 16 | 999** | $998 \cdot 9$ | 998 | $998 \cdot 5$ | 998.4 |
| 17 | 999** | $998 \cdot 8$ | $998 \cdot 6$ | $998 \cdot 5$ | $998 \cdot 3$ |
| 18 | 998.9 | $998 \cdot 7$ | $998 \cdot 6$ | 998.4 | 998.2 |
| 19 | 998.9 | $998 \cdot 7$ | $998 \cdot 5$ |  |  |
| 20 | $998 \cdot 8$ | 998.6 | 998.4 | 998.2 | , |
| 21 | $998 \cdot 7$ |  | $998 \cdot 3$ | 998 - | $997 \cdot 8$ |
| 22 | $998 \cdot 7$ | $998 \cdot 4$ | 998.2 | 998.0 | $997 \cdot 7$ |
| 23 | $998 \cdot 6$ | 998.4 | $998 \cdot 2$ | 997.9 | 9977 |
| 24 | $998 \cdot 6$ | $998 \cdot 3$ | 998-1 | $997 \cdot 8$ | 997.6 |
| 25 | $998 \cdot 6$ | 998.3 | 998-1 | $997 \cdot 8$ | $997 \cdot 6$ |

$66^{\circ}-70^{\circ}$
VOLUMES.

|  | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $998 \cdot 5$ | $998 \cdot 2$ | 998.0 | 997*7 | 9975 |
| 27 | $998 \cdot 4$ | $998 \cdot 2$ | 997.9 | $997 \cdot 6$ | 997.4 |
| 28 | $998 \cdot 4$ | $998 \cdot \mathrm{I}$ | $997 \cdot 8$ | $997 \cdot 5$ | 997.3 |
| 29 | $998 \cdot 3$ | 998.0 | 997.7 | $997 \cdot 4$ | $997^{\circ} 2$ |
| 30 | $998 \cdot 3$ | 998.0 | $997 \cdot 7$ | $997 \cdot 4$ | 997 ${ }^{1}$ |
| 31 | $998 \cdot 2$ | 997*9 | 997.6 | 997*3 | $997^{\circ}$ |
| 32 | $998 \cdot \mathrm{I}$ | $997 \cdot 8$ | $997 \cdot 5$ | $997 \cdot 2$ | 996.9 |
| 33 | 998.I | 997.7 | 997.4 | 997*1 | 996•7 |
| 34 | $998 \cdot 0$ | 997.7 | 997*3 | 997.0 | 996.7 |
| 35 | 998.0 | $997 \cdot 6$ | 997.3 | 996.9 | $996 \cdot 6$ |
| 36 | 997*9 | 997*5 | 997*2 | $996 \cdot 8$ | $996 \cdot 5$ |
| 37. | $997 \cdot 8$ | $997 \cdot 5$ | 997.1 | $996 \cdot 7$ | $996 \cdot 3$ |
| 38 | $997 \cdot 7$ | $997 \cdot 4$ | $997^{\circ}$ | $996 \cdot 6$ | 996.2 |
| 39 | $997 \cdot 7$ | $997 \cdot 3$ | 996.9 | $996 \cdot 6$ | $996 \cdot 2$ |
| 40 | 997.7 | 997.3 | $996 \cdot 9$ | $996 \cdot 5$ | 996.I |
| 41 | $997 \cdot 6$ | $997^{\circ} 2$ | $996 \cdot 8$ | $996 \cdot 4$ | 996•I |
| 42 | $997 \cdot 6$ | $997^{\circ}$ | $996 \cdot 8$ | $996 \cdot 4$ | $996 \cdot$ |
| 43 | $997 \cdot 6$ | $997^{1}$ I | $996 \cdot 7$ | $996 \cdot 3$ | $995 \cdot 9$ |
| 44 | $997 \cdot 5$ | $997^{1}$ I | $996 \cdot 7$ | 996.3 | 995.8 |
| 45 | $997 \cdot 5$ | $997^{1} \mathrm{I}$ | 996.6 | 996.2 | 995.8 |
| 46 | 997.4 | $997^{\circ}$ | $996 \cdot 6$ | $996 \cdot 2$ | 995*7 |
| 47 | 997.4 | $997^{\circ}$ | $996 \cdot 5$ | 996•I | 995.7 |
| 48 | 997.4 | $996 \cdot 9$ | $996 \cdot 5$ | 996•I | 995.6 |
| 49 | $997 \cdot 4$ | $996 \cdot 9$ | $996 \cdot 5$ | $996 \cdot 0$ | $995 \cdot 6$ |
| 50 | 997*3 | 996 | $996 \cdot 4$ | $996 \cdot$ | $995 \cdot 5$ |

$$
66^{\circ}-70^{\circ}
$$

VOLUMES.

|  | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 9973 | 99 | $996 \cdot 4$ | 995*9 |  |
| 52 | 997*3 | 996.8 | $996 \cdot 3$ | 995.9 | 995.4 |
| 53 | 997:2 | 996.8 | 996.3 | 995*9 | 995.4 |
| 54 | 997.2 | $996 \cdot 7$ | $996 \cdot 3$ | 995 | 995.3 |
| 55 | 997.2 |  | 99 | 99 | 995*3 |
| 50 | 997.2 | $996 \cdot 7$ | $996 \cdot 2$ | 995.7 | 995.3 |
| 57 | 997* 1 | $996 \cdot 7$ | $996 \cdot 2$ | 995.7 | $5 \cdot 2$ |
| 58 | 997* | $996 \cdot 6$ | 996.2 | 995\%7 | $95^{\circ}$ |
| 59 | 997-1 | $996 \cdot 6$ | $996 \cdot 1$ | 995.6 | $\cdot 2$ |
| 60 | 997 ${ }^{\text {I }}$ | $996 \cdot 6$ |  | $995 \cdot 6$ | 995.1 |
| 61 | 997. 1 | 996.6 | 99 | 995 | $5 \cdot 1$ |
| 62 | $997^{\circ}$ | $996 \cdot 5$ | $996 \cdot 0$ | 995.5 | $5 \cdot$ |
| 63 | $997^{\circ}$ | 996 | 996.0 | 995.5 | $95^{\circ}$ |
| 64 | $997^{\circ}$ | 996 | $996 \cdot$ | 995.5 | $95^{\circ}$ |
| 65 | - $9977^{\circ}$ | 996.5 |  | 995.5 | $995{ }^{\circ}$ |
| 66 |  |  | 996.0 |  | 㖪 |
| 67 | 996.9 | $996 \cdot 4$ | 995.9 | 995.4 | 994.9 |
| 68 | $996 \cdot 9$ | $996 \cdot 4$ | $995^{\circ}$ | 995.4 | 94.8 |
| 69 | $996 \cdot 9$ | $996 \cdot 4$ | $995^{\circ}$ | 995.3 | $994 \cdot 8$ |
| 70 | $996 \cdot 9$ | $996 \cdot 4$ | 995 | 995 | 94.8 |
| 1 | 996.9 | $996 \cdot 3$ | 995 | 95.3 | 994.8 |
| 72 | 996.9 | 996.3 | $995 \cdot 8$ | 995.3 | 994.7 |
| 73 | $996 \cdot 8$ | 996.3 | 995.8 | 995.2 | 994.7 |
| 74 | $996 \cdot 8$ | $996 \cdot 3$ | $995 \cdot 8$ | 995.2 | $994 \cdot 7$ |
| 75 | $996 \cdot 8$ | 996.3 | 995\% | 995.2 | 994.7 |

$66^{\circ}-70^{\circ}$

## VOLUMES.

|  | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $996 \cdot 8$ | 996.3 | 995*7 | $995 \cdot 2$ | 994.6 |
| 77 | $996 \cdot 8$ | 996.2 | 995*7 | 995.2 | 994.6 |
| 78 | 996.8 | 996.2 | $995 \cdot 7$ | 995•1 | 994.6 |
| 79 | 996•7 | $996 \cdot 2$ | $995 \cdot 6$ | $995 \cdot \mathrm{I}$ | 994.6 |
| 80 | 996•7 | 996.2 | $995 \cdot 6$ | 995.I | 994.5 |
| 81 | $996 \cdot 7$ | $996 \cdot 2$ | $995 \cdot 6$ | $995^{\circ} \mathrm{O}$ | 9945 |
| 82 | $996 \cdot 7$ | 996•I | $995 \cdot 6$ | $995{ }^{\circ}$ | 994.5 |
| 83 | 996•7 | 996•I | - $995 \cdot 6$ | $995^{\circ} \mathrm{O}$ | 994.4 |
| 84 | 996•7 | 996•I | $995 \cdot 5$ | $995^{\circ}$ | $994 * 4$ |
| 85 | $996 \cdot 6$ | $996 \cdot 1$ | $995 \cdot 5$ | $994 * 9$ | 994.4 |
| 86 | $996 \cdot 6$ | 996.I | 995.5 | 994*9 | 994.4 |
| 87 | $996 \cdot 6$ | $996 \cdot 0$ | $995 \cdot 5$ | 994.9 | 994* |
| 88 | $996 \cdot 6$ | $996 \cdot 0$ | $995 \cdot 5$ | 994.9 | 994.3 |
| 89 | $996 \cdot 6$ | $996 \cdot 0$ | $995 \cdot 4$ | 994.8 | 994.3 |
| 90 | $996 \cdot 6$ | 996.0 | 995.4 | 994.8 | 994*2 |
| 91 | $996 \cdot 5$ | $996 \cdot 0$ | $995{ }^{\circ} 4$ | 994.8 | $994{ }^{\circ}$ |
| 92 | $996 \cdot 5$ | 995.9 | 995.4 | 994.8 | 994*2 |
| 93 | $996 \cdot 5$ | $995 \cdot 9$ | 995:3 | 994.8 | $994^{\circ}$ |
| 94 | $996 \cdot 5$ | 995.9 | 995.3 | $994 \cdot 7$ | $994^{\circ}$ |
| 95 | $996 \cdot 5$ | 995*9 | 995.3 | 994*7 | $994^{\circ} \mathrm{I}$ |
| 96 | 996.5 | 995*9 | 995.3 | $994 * 7$ | 994* ${ }^{\text {I }}$ |
| 97 | 996.5 | 995.9 | 995.3 | 994*7 | $994^{\circ} \mathrm{I}$ |
| 98 | $996 \cdot 5$ | 995.9 | 995.3 | $994 * 7$ | 994* 1 |
| 99 | $996 \cdot 4$ | $995 \cdot 8$ | $995^{2}$ | $994 \cdot 6$ | $994^{\circ}$ |
| 100 | $996 \cdot 4$ | $995 \cdot 8$ | $995 \cdot 2$ | 994.6 | $994^{\circ}$ |

$$
71^{\circ}-75^{\circ}
$$

VOLAMES.

| \|l| | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $998 \cdot 8$ | $998 \cdot 7$ | $998 \cdot 6$ | $998 \cdot 4$ | 998.3 |
| 2 | $998 \cdot 8$ | $998 \cdot 7$ | $998 \cdot 5$ | $998 \cdot 4$ | $998 \cdot 3$ |
| 3 | $998 \cdot 8$ | $998 \cdot 6$ | $998 \cdot 5$ | $998 \cdot 4$ | $998 \cdot 2$ |
| 4 | 998.8 | $998 \cdot 6$ | $998 \cdot 5$ | $998 \cdot 4$ | $998 \cdot 2$ |
| 5 | $998 \cdot 8$ | $998 \cdot 6$ | $998 \cdot 5$ | $998 \cdot 3$ | $998 \cdot 2$ |
| 6 | 998.7 | $998 \cdot 6$ | $998 \cdot 4$ | $998 \cdot 3$ | 998.2 |
| 7 | $998 \cdot 7$ | $998 \cdot 5$ | $998 \cdot 4$ | $998 \cdot 2$ | $998 \cdot \mathrm{I}$ |
| 8 | 998•7 | $998 \cdot 5$ | $998 \cdot 4$ | $998 \cdot 2$ | 998•1 |
| 9 | $998 \cdot 6$ | $998 \cdot 5$ | $998 \cdot 3$ | $998 \cdot 1$ | $998 \cdot$ |
| 10 | $998 \cdot 6$ | $998 \cdot 4$ | 998.3 | 998.I | 998.0 |
| 11 | $998 \cdot 5$ | $998 \cdot 3$ | $998 \cdot 2$ | 998.0 | 997*9 |
| 12 | $998 \cdot 4$ | $998 \cdot 3$ | $998 \cdot 1$ | 997.9 | $997 \cdot 8$ |
| 13 | $998 \cdot 4$ | $998 \cdot 2$ | $998 \cdot 0$ | 997*9 | 997* |
| 14 | $998 \cdot 3$ | 998•I | 998.0 | $997 \cdot 8$ | 997.6 |
| 15 | 998.2 | 998•I | 997.9 | $997 \cdot 7$ | $997 \cdot 5$ |
| 16 | 998.2 | 998.0 | $997 \cdot 8$ | $997 \cdot 6$ | 997* 4 |
| 17 | 998•1 | 997.9 | $997 \cdot 7$ | $997 \cdot 5$ | 997*3 |
| 18 | 998.0 | $997 \cdot 8$ | $997 \cdot 6$ | 997.4 | $997^{\circ}$ |
| 19 | 997*9 | $997 \cdot 6$ | 997.4 | $997 \cdot 2$ | 997.0 |
| 20 | 997'7 | $997 \cdot 5$ | 997*3 | 997.0 | 996.8 |
| 21 | $997 \cdot 6$ | 997.4 | 997*1 | $996 \cdot 9$ | $996 \cdot 6$ |
| 22 | $997 \cdot 5$ | 997*2 | $997^{\circ}$ | $996 \cdot 7$ | $996 \cdot 5$ |
| 23 | $997 \cdot 4$ | $997 \cdot 2$ | 996.9 | $996 \cdot 6$ | $996 \cdot 4$ |
| 24 | $997 \cdot 3$ | $997 \cdot 1$ | $996 \cdot 8$ | $996 \cdot 6$ | 996.3 |
| 25 | 997.3 | 997 ${ }^{1}$ | $996 \cdot 8$ | 996.5 | 996.2 |

$71^{\circ}-75^{\circ}$
VOLUMES.

| \| | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 997.2 | 996 | $996 \cdot 6$ | 996.4 | 996.1 |
| 27 | 9971 | $996 \cdot 8$ | 996.5 |  | 995.9 |
| 28 | $997{ }^{\circ} \mathrm{O}$ | 996.7 | 996.4 | 99 |  |
| 29 | $996 \cdot 8$ | $996 \cdot 5$ | 996.2 | $995^{\circ}$ | 9956 |
| 30 |  |  |  |  | 995 |
| 31 | $996 \cdot 6$ | $996 \cdot 3$ | $996 \cdot 0$ | $995 \cdot 7$ | 995* |
| 32 | $996 \cdot 5$ | $996 \cdot 2$ | 995*9 | 995.5 |  |
| 33 | $996 \cdot 4$ | 996.1 | 9957 | 995 | 995 |
| 34 | $996 \cdot 3$ | 996.0 | $995 \cdot 6$ | 995.3 | 994.9 |
| 35 | $996 \cdot 2$ | $995 \cdot 8$ | 995'5 | 995 | 4.8 |
| 36 | $996 \cdot 1$ | 995•7 | $995 \cdot 4$ | 995 ${ }^{\circ}$ | 994.6 |
| 37 | $996 \cdot 0$ | 995.6 | 995.2 | $994 \cdot 8$ | 9944 |
| 38 | 995.8 | 995.4 | 995* | 994.7 | 9943 |
| 39 40 | 999.8 | ${ }^{995}{ }^{\circ} \cdot 4$ | 995* | ${ }^{994} 4 \cdot 6$ | 99 |
| 40 | 995.7 | $995 * 3$ | 994*9 | $994 \cdot 5$ |  |
| 41 | 995.6 | 995.2 | 994.8 | 994 | 994 |
| 4 | 995.6 | 995.2 | $994 \cdot 7$ | 9943 | 993 |
| 43 | 995.5 | 995.1 | 994.6 | 994. | 993 |
| 4 | $995 \cdot 4$ | $995{ }^{\circ}$ | 994.5 | $994{ }^{\circ}$ | 993 |
| 45 | 995.4 | $4 \cdot 9$ | 994.5 | 994 ${ }^{1}$ | 993 |
| 46 | $995 \cdot 3$ | 994*9 | 994.4 | $994{ }^{\circ}$ | 993.5 |
| 47 | 995.2 | 994.8 | $994 \cdot 3$ | 993. | 993'5 |
| 48 | 995.2 | 994.7 | 9943 | 993. | 993.4 |
| 49 | $995 \cdot 1$ | 994.7 | 994.2 | 993. | 993.3 |
|  | $995 \cdot 1$ | 994.6 | 994*2 | 99 | 993 |

$71^{\circ}-75^{\circ}$
VOLUMES.

|  | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 995.0 | 994*6 | $994{ }^{\text {¹ }}$ | 993.6 | 993:2 |
| 52 | 995*0 | 994.5 | 994*0 | $993 \cdot 6$ | 993:1 |
| 53 | 994.9 | 994.4 | $994{ }^{\circ}$ | 993.5 | 993* |
| 54 | 994.8 | $994{ }^{\circ}$ | 993.9 | 993.4 | 992.9 |
| 55 | 994.8 | 994*3 | $993 \cdot 8$ | 993.4 | 992.9 |
| 56 | 994.8 | 994.3 | $993 \cdot 8$ | $993 \cdot 3$ | 992.8 |
| 57 | 994.7 | 994*3 | 993.8 | 993.3 | 992.8 |
| 58 | 994*7 | 994*2 | $993 \cdot 7$ | 993.2 | 992.8 |
| 59 | 994*7 | $994 \cdot 2$ | $993 \cdot 7$ | $993 \cdot 2$ | $99^{2 \cdot 7}$ |
| 60 | $994 \cdot 6$ | $994^{1} \mathrm{I}$ | $993 \cdot 6$ | $993 \cdot \mathrm{I}$ | $99^{2 \cdot 7}$ |
| 61 | $994 \cdot 6$ | 994*1 | $993 \cdot 6$ | 993.1 | 992.6 |
| 62 | 994.5 | 994.0 | $993 \cdot 5$ | 993.0 | 992.5 |
| 63 | 994.5 | $994{ }^{\circ}$ | 993.5 | 993.0 | 992.5 |
| 64 | 994.5 | 994.0 | 993.5 | 993.0 | $992 \cdot 5$ |
| 65 | 994.5 | $994{ }^{\circ}$ | 993.4 | $992 \cdot 9$ | 992.4 |
| 66 | 994.4 | 993.9 | 993.4 | 992.9 | 992.4 |
| 67 | $994 \cdot 4$ | $993 \cdot 8$ | $993 \cdot 3$ | $992 \cdot 8$ | 992.3 |
| 68 | 994*3 | $993 \cdot 8$ | 993.3 | $992 \cdot 7$ | $99^{2 \cdot 2}$ |
| 69 | 994*3 | $993 \cdot 8$ | $993 \cdot 2$ | $992 \cdot 7$ | $99^{2 \cdot 2}$ |
| 70 | 994*3 | 993.7 | 993.2 | $992 \cdot 7$ | 992.1 |
| 71 | $994^{.2}$ | $993 \cdot 7$ | 993.2 | $992 \cdot 6$ | 992•I |
| 72 | $994^{\circ} \mathrm{L}$ | $993 \cdot 7$ | 993.1 | $992 \cdot 6$ | 992•I |
| 73 | $994 \cdot 2$ | 993.6 | '993.1 | $992 \cdot 6$ | $99^{2 \cdot}$ |
| 74 | 994.I | $993 \cdot 6$ | 993.1 | 992.5 | $99^{2 \cdot}$ |
| 75 | 994.I | $993 \cdot 6$ | 993.0 | $992 \cdot 5$ | $992 \cdot$ |

$71^{\circ}-75^{\circ}$
VOLUMES.

|  | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 994* ${ }^{1}$ | 993.5 | 993.0 | 9925 | 991.9 |
| 77 | 994* ${ }^{\text {I }}$ | 993.5 | $993{ }^{\circ}$ | $992 \cdot 4$ | 991.9 |
| 78 | 994* | 993.5 | $992 \cdot 9$ | $992 \cdot 4$ | 991•8 |
| 79 | $994^{\circ}$ | 993.4 | 992.9 | 992.3 | 991•8 |
| 80 | $994^{\circ}$ | 993.4 | $992 \cdot 8$ | 992.3 | 991•7 |
| 81 | 993.9 | 993.4 | 992.8 | 992.3 | 991•7 |
| 82 | 993.9 | 993.4 | $992 \cdot 8$ | $992 \cdot 2$ | 991•7 |
| 83 | 993.9 | $993 \cdot 3$ | $992 \cdot 8$ | $992 \cdot 2$ | 991•6 |
| 84 | $993 \cdot 8$ | 993.3 | $992 \cdot 7$ | $992 \cdot 2$ | 991.6 |
| 85 | $993 \cdot 8$ | $993{ }^{\circ}$ | $992 \cdot 7$ | $99^{2 \cdot 1}$ | 991.5 |
| 86 | $993 \cdot 8$ | 993.2 | $992 \cdot 6$ | $992 \cdot 1$ | 9915 |
| 87 | 993.7 | $993 \cdot 2$ | $992 \cdot 6$ | $99^{\circ} \mathrm{O}$ | $991 \cdot 4$ |
| 88 | 993.7 | $993 \cdot 2$ | $992 \cdot 6$ | $99^{2} 0$ | $991 \cdot 4$ |
| 89 | 993.7 | 993.1 | $992 \cdot 5$ | $99^{2} 0$ | $991 \cdot 4$ |
| 90 | 993:7 | $993 \cdot 1$ | $992 \cdot 5$ | 991*9 | $991 \cdot 4$ |
| 91 | $993 \cdot 6$ | 993.I | $992 \cdot 5$ | 991*9 | 991•3 |
| 92 | $993 \cdot 6$ | $993{ }^{\circ}$ | 992.4 | 991.9 | 991.3 |
| 93 | $993 \cdot 6$ | $993{ }^{\circ}$ | 992.4 | 991.8 | 991•2 |
| 94 | $993 \cdot 6$ | 993.0 | $992 \cdot 4$ | 991.8 | 991.2 |
| 95 | 993.5 | $992 \cdot 9$ | 992.3 | 991.8 | 991.2 |
| 96 | 993.5 | 992.9 | $992 \cdot 3$ | 991.7 | 991.2 |
| 97 | 993.5 | $992 \cdot 9$ | $992 \cdot 3$ | 991.7 | 991.1 |
| 98 | 993.5 | 992.9 | $992 \cdot 2$ | 991.6 | $991^{\circ} 0$ |
| 99 | 993.4 | $992 \cdot 8$ | $992 \cdot 2$ | 991.6 | 9910 |
| 100 | 993.4 | 992.8 | 992.2 | 991.6 | 9910 |

$$
76^{\circ}-80^{\circ}
$$

VOLUMES.

|  | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 998•I | $998 \cdot$ | 997-8 | 9977 | 9975 |
| 2 | $998 \cdot 1$ | $998 \cdot$ | 997.8 | $997 \cdot 6$ | $997 \cdot 5$ |
| 3 | 998-1 | 997.9 | 997-8 | $997 \cdot 6$ | $997 \cdot 5$ |
| 4 | 998-I | $997 * 9$ | 997* 7 | 997.6 | 997.4 |
| 5 | $998 \cdot 0$ | 997.9 | $997 \times 7$ | $997 \cdot 6$ | $997 \cdot 4$ |
| 6 | 998.0 | $997 \cdot 8$ | 997\% | 997'5 | 997*3 |
| 7 | 997.9 | $997 \cdot 8$ | 997.6 | 997.4 | 997.3 |
| 8 | 997*9 | 997.7 | $997 \cdot 6$ | $997 *$ | 997*2 |
| 9 | $997 \cdot 8$ | $997 \cdot 6$ | 9975 | $997 \cdot 3$ | $997 \cdot 1$ |
| 10 | $997 \cdot 8$ | $997 \cdot 6$ | $997 \cdot 4$ | $997^{\circ} 2$ | 997 ${ }^{1}$ |
| 11 | 997*7 | 997.5 | 997*3 | $997{ }^{\circ} \mathrm{I}$ | $997^{\circ}$ |
| 12 | $997 \cdot 6$ | $997 \cdot 4$ | $997 \cdot 2$ | $997^{\circ}$ | $996 \cdot 8$ |
| 13 | 997.5 | $997 \cdot 3$ | 997 ${ }^{\text {I }}$ | $996 \cdot 9$ | $996 \cdot 7$ |
| 14 | 997.4 | $997^{-2}$ | 997.0 | $996 \cdot 8$ | $996 \cdot 6$ |
| 15 | 997*3 | 997 ${ }^{\text {I }}$ | $996 \cdot 9$ | $996 \cdot 7$ | $996 \cdot 5$ |
| 16 | $997{ }^{\circ} 2$ | $997{ }^{\circ}$ | $996 \cdot 8$ | $996 \cdot 5$ | 996.3 |
| 17 | $997{ }^{\text {¹ }}$ | $996 \cdot 8$ | $996 \cdot 6$ | 996.4 | $99^{6 \cdot 2}$ |
| 18 | 996.9 | $996 \cdot 7$ | 996.5 | 996.3 | 996. 1 |
| 19 | $996 \cdot 8$ | $996 \cdot 5$ | $996 \cdot 3$ | 996. 1 | $995 \cdot 8$ |
| 20 | $996 \cdot 6$ | 996.3 | 996.I | 995*8 | $995 \cdot 6$ |
| 21 | $996 \cdot 4$ | 996.I | $995 \%$ | $995 \cdot 6$ | 9953 |
| 22 | 996.2 | 995.9 | 995.6 | $995 \cdot 4$ | 995 ${ }^{\text {I }}$ |
| 23 | 996.1 | 995.8 | $995 \cdot 6$ | 995*3 | 995* |
| 24 | 996.0 | $995 \%$ | 995.5 | $995^{\circ} 2$ | 994*9 |
| 25 | $995 \%$ | 9957 | $995 \cdot 4$ | $995^{\circ} \mathrm{I}$ | 994.8 |

$76^{\circ}$ $-80^{\circ}$

VOLUMES.

| \|ce | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 995•8 | 995.5 | 995.2 | 994.9 | 994.6 |
| 27 | 995.6 | 995.3 | 995*1 | 994.8 | 994.5 |
| 28 | 995.5 | 995*2 | 994.9 | 994.6 | 994*3 |
| 29 | 995*3 | $995^{\circ}$ | 9947 | 994.4 | 994*1 |
| 30 | $995^{\circ} 2$ | 9949 | 9945 | 994.2 | 993.9 |
| 31 | $995^{\circ}$ | 994*7 | $994 * 4$ | 994* | 993.7 |
| 32 | 994.9 | 994.5 | $994^{\circ}$ | 993.9 | 993.5 |
| 33 | 9947 | 994.4 | $994^{\circ}$ | $993 \cdot 7$ | 993.3 |
| 34 | 9945 | 994*2 | 993.8 | 993.5 | 993.1 |
| 35 | 994.4 | $994^{\circ}$ | 993.7 | $993 \cdot 3$ | 992.9 |
| 36 | $994^{\circ} 2$ | 993.9 | 993.5 | 993•1 | $992 \cdot 7$ |
| 37 | 994* ${ }^{\text {I }}$ | $993 \cdot 7$ | 993.3 | 992.9 | $992 \cdot 5$ |
| 38 | 993.9 | 993.5 | 993'I | 992.7 | 992.3 |
| 39 | $993 \cdot 8$ | 993.4 | 993.0 | $992 \cdot 6$ | $992 \cdot 2$ |
| 40 | 993.7 | 993.3 | 992.9 | $992 \cdot 5$ | 992.1 |
| 41 | $993 \cdot 6$ | 993.2 | 992.8 | 992.4 | 992.0 |
| 42 | 993.5 | 993.1 | $992 \cdot 7$ | $992 \cdot 2$ | 991.8 |
| 43 | 993.4 | 992.9 | 992.5 | $992 \cdot 1$ | 991.7 |
| 44 | 993*3 | $992 \cdot 8$ | $992 \cdot 4$ | 991.9 | 9915 |
| 45 | $993 \cdot 2$ | $992 \cdot 7$ | 992.3 | 991•9 | 9914 |
| 46 | 993 ${ }^{1}$ | $992 \cdot 7$ | 992.2 | 991.8 | 991.3 |
| 47 | $993{ }^{\circ}$ | $992 \cdot 6$ | 992.1 | 991.7 | 991.2 |
| 48 | 992.9 | 992.5 | 992.0 | $991 \cdot 6$ | 991.I |
| 49 | 992.9 | $992 \cdot 4$ | 991.9 | 991.5 | $99^{1 \cdot 0}$ |
| 50 | 992.8 | $992 \cdot 3$ | 9919 | 991.4 | $990 \cdot 9$ |

$76^{\circ}-80^{\circ}$
VOLUMES.

|  | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 992•7 | 992.2 | 991.8 | 991.3 | 990*9 |
| 52 | 992.6 | $992 \cdot 1$ | 991.7 | 991.2 | $990 \cdot 7$ |
| 53 | $992 \cdot 5$ | 992.1 | $991 \cdot 6$ | 991•1 | $990 \cdot 6$ |
| 54 | $992 \cdot 5$ | $992 \cdot 0$ | 9915 | $991 \cdot 0$ | $990 \cdot 5$ |
| 55 | $992 \cdot 4$ | 991.9 | 991.4 | 990.9 | $990 \cdot 5$ |
| 56 | 992•3 | 991.9 | 991*4 | 990.9 | $990 \cdot 4$ |
| 57 | 992.3 | 991.8 | $991 \cdot 3$ | $990 \cdot 8$ | $990 \cdot 3$ |
| 58 | 992.3 | 991.8 | 991.3 | $990 \cdot 8$ | 990.3 |
| 59 | $992 \cdot 2$ | $991 \cdot 7$ | 991.2 | 990.7 | 990.2 |
| 60 | $992 \cdot 2$ | $991 \cdot 7$ | $991 \cdot 2$ | 990.7 | 990.2 |
| 61 | 992.1 | 991.6 | 991.I | $990 \cdot 6$ | 990.1 |
| 62 | $992 \cdot 0$ | 991.5 | 991.0 | $990 \cdot 5$ | $990 \cdot 0$ |
| 63 | 9920 | 991.5 | $991{ }^{\circ} 0$ | $990 \cdot 4$ | 989.9 |
| 64 | 991.9 | $991 \cdot 4$ | 990*9 | $990 \cdot 4$ | 989.9 |
| 65 | 991*9 | $991 \cdot 4$ | 990.9 | $990 \cdot 4$ | $989 \cdot 9$ |
| 66 | 991.8 | 991•3 | $990 \cdot 8$ | 990*3 | $989 \cdot 8$ |
| 67 | $991 \cdot 7$ | 991•2 | $990 \cdot 7$ | $990 \cdot 2$ | $989 \cdot 6$ |
| 68 | 991.7 | $991 \cdot 2$ | $990 \cdot 6$ | 990.I | $989 \cdot 6$ |
| 69 | 991.6 | 991•1 | $990 \cdot 6$ | 9900 | 989.5 |
| 70 | 991.6 | 991.I | $990 \cdot 5$ | 9900 | $989 \cdot 5$ |
| 71 | 991.6 | $991{ }^{\circ}$ | $990 \cdot 5$ | 9900 | $989 \cdot 4$ |
| 72 | 991.5 | 991.0 | $990 \cdot 5$ | 989.9 | $989 \cdot 4$ |
| 73 | 991.5 | 990.9 | $990 \cdot 4$ | 989.9 | $989 \cdot 3$ |
| 74 | 991.4 | 990.9 | $990 \cdot 3$ | 989.8 | $989 \cdot 3$ |
| 75 | 9914 | 990\%9 | $990 \cdot 3$ | $989 \cdot 8$ | 989.2 |

$76^{\circ}-80^{\circ}$
VOLUMES.

|  | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 9914 | $990 \cdot 8$ | 990.3 | $989 \cdot 7$ | 989.2 |
| 77 | 9913 | $990 \cdot 8$ | 990.2 | 989*7 | 989*I |
| 78 | 991.3 | 990\% | $990 \cdot 2$ | $989 \cdot 6$ | 989.1 |
| 79 | $991 \cdot 2$ | 990.7 | 990.1 | $989 \cdot 6$ | 989.0 |
| 80 | 991.2 | $990 \cdot 6$ | $990 \cdot 1$ | 989.5 | 988.9 |
| 81 | 991'I | $990 \cdot 6$ | 990.0 | 989.5 | 988.9 |
| 82 | 991•1 | 990.5 | 990.0 | 989.4 | $988 \cdot 9$ |
| 83 | 991•1 | $990 \cdot 5$ | 989.9 | 989.4 | 988.8 |
| 84 | $991 \cdot 0$ | 990.5 | 98909 | 989.3 | $988 \cdot 8$ |
| 85 | $991{ }^{\circ}$ | $990 \cdot 4$ | $989 \cdot 8$ | 989.3 | $988 \cdot 7$ |
| 86 | 990*9 | 990.3 | 989.8 | 989.2 | $988 \cdot 6$ |
| 87 | 990•9 | 990.3 | $989 \cdot 7$ | $9^{88} 9^{1}$ | $988 \cdot 6$ |
| 88 | $990 \cdot 8$ | 990.3 | 989\%7 | 989 ${ }^{-1}$ | $988 \cdot 5$ |
| 89 | $990 \cdot 8$ | 990.2 | 989.6 | 989* | $988 \cdot 5$ |
| 90 | $990 \cdot 8$ | 990.2 | 989.6 | $989{ }^{\circ}$ | $988 \cdot 4$ |
| 91 | 990*7 | 990*1 | 989.5 | $988 \cdot 9$ | $988 \cdot 3$ |
| 92 | 990\% | 990•1 | 9895 | $988 \cdot 9$ | 988.3 |
| 93 | $990 \cdot 6$ | $990 \cdot 0$ | 9894 | 988.8 | $988 \cdot 2$ |
| 94 | $990 \cdot 6$ | 9900 | 989.4 | 988.8 | $988 \cdot 2$ |
| 95 | $990 \cdot 6$ | $990 \cdot$ | 989.4 | 988.8 | $988 \cdot 2$ |
| 96 | $990 \cdot 6$ | 990'0 | 989*3 | $988 \cdot 7$ | $988 \cdot \mathrm{I}$ |
| 97 | $990 \cdot 5$ | 98909 | 9890.2 | 988.6 | 988.0 |
| 98 | $990 \cdot 4$ | 989.8 | $989 \cdot 2$ | $988 \cdot 6$ | $988 \cdot 0$ |
| 99 | 990.4 | 989.8 | $989{ }^{\circ} \mathrm{I}$ | $988 \cdot 5$ | 987.9 |
| 100 | $990 \cdot 4$ | $989 \cdot 8$ | $9^{8} 9^{\circ} \mathrm{I}$ | $988 \cdot 5$ | 987.9 |

$$
81^{\circ}-85^{\circ}
$$

## VOLUMES.

|  | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 9973 | 997*2 | $997{ }^{\circ}$ | 996.8 | 996.7 |
| 2 | 997*3 | 997 ${ }^{1}$ | $997^{\circ} \mathrm{O}$ | 996.8 | 996.6 |
| 3 | 997.3 | $997^{\circ} \mathrm{I}$ | $996 \cdot 9$ | 996.7 | $996 \cdot 6$ |
| 4 | 997*2 | $997^{\circ} \mathrm{I}$ | 996.9 | $996 \cdot 7$ | $996 \cdot 5$ |
| 5 | 997*2 | 997.0 | $996 \cdot 8$ | $996 \cdot 7$ | 996.5 |
| 6 | $997{ }^{\circ} \mathrm{I}$ | $997^{\circ} \mathrm{O}$ | 996•8 | $996 \cdot 6$ | $996 \cdot 4$ |
| 7 | 997.1 | 996.9 | 996•7 | 996.5 | 9963 |
| 8 | $997^{\circ}$ | $996 \cdot 8$ | $996 \cdot 6$ | $996 \cdot 5$ | $996 \cdot 3$ |
| 9 | $996 \cdot 9$ | $996 \cdot 7$ | $996 \cdot 6$ | $996 \cdot 4$ | 996.2 |
| 10 | $99^{6 \cdot 9}$ | 996.7 | 996.5 | 996.3 | 996•I |
| 11 | $996 \cdot 8$ | $996 \cdot 6$ | $996 \cdot 4$ | $996 \cdot 2$ | $996 \cdot$ |
| 12 | $996 \cdot 6$ | $996 \cdot 4$ | 996.2 | 996.0 | $995 \cdot 8$ |
| 13 | $996 \cdot 5$ | 996.3 | 996•1 | 995*9 | $995 \cdot 7$ |
| 14 | $996 \cdot 4$ | $996 \cdot 2$ | 996.0 | $995 \%$ | $995 \cdot 5$ |
| 15 | 996.3 | 996.0 | 995.8 | $995 \cdot 6$ | $995 \cdot 4$ |
| 16 | 996.I | $995{ }^{\circ} 9$ | 995.6 | 995.4 | $995^{\circ}$ |
| 17 | 996.0 | $995^{\circ} 7$ | 995.5 | $995 \cdot 3$ | $995^{\circ}$ |
| 18 | 995:8 | $995 \cdot 6$ | $995 \cdot 3$ | 995.1 | 994.9 |
| 19 | $995 \cdot 6$ | 995.3 | 995.I | $994 \cdot 8$ | 994.6 |
| 20 | $995 \cdot 3$ | $995{ }^{\circ} \mathrm{I}$ | 994.8 | $994 \cdot 5$ | $994 * 3$ |
| 21 | $995 \cdot 1$ | 994.8 | 9945 | $994^{\circ}$ | $994{ }^{\circ}$ |
| 22 | 994.8 | 994.5 | $994^{\circ}$ | $994^{\circ}$ | $993 \%$ |
| 23 | 994.7 | $994^{\circ} 4$ | $994^{2}$ | 993.9 | 993.6 |
| 24 | 994.6 | $994 \cdot 3$ | $994^{\circ}$ | $993 \cdot 8$ | 993.5 |
| 25 | 994.5 | $994 \cdot 2$ | 993.9 | $993 \cdot 6$ | $993{ }^{\circ} 4$ |

VOLUMES.

|  | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 99 | 994 | 993 | 993.4 | 993 |
| 27 | 994 | 993 | 993 | 993 |  |
| 28 | 994 | $993 \cdot 6$ | 993.3 | 993 |  |
| 29 | 993. | 993.4 | 993.1 | 992 | $992 \cdot 5$ |
| 30 | 993 | $993{ }^{2}$ | 992.9 | 992.6 | 992.2 |
| 31 | 993.4 | 99 | 99 | $992 \cdot 4$ |  |
| 32 | 993 | 99 | $992 \cdot 5$ | 99 |  |
| 33 | 993 | 992.6 | 992.2 | 991.9 | 9915 |
| 34 | 992.8 | 992.4 | 992.0 | 991.7 | 991.3 |
| 35 | $992 \cdot 6$ | 992.2 | 991 | 9914 | 991-1 |
| 36 | 99 | 992.0 | 991 | 991.2 |  |
| 88 | 992.1 | 991.7 | 9913 | 990. | $990 \cdot 5$ |
| 38 | 991.9 | 991.5 | 991.0 | $990 \cdot 6$ | 990.2 |
| 39 | 991.8 | 9914 | 991 | $990 \cdot 6$ |  |
| 40 | 9917 | 9913 | 99 | 990.5 |  |
|  | g) | 99 |  | , |  |
| 42 | 991.4 | 991.0 | 990.5 | 990.1 |  |
| 43 | 991.2 | 990.8 | 990.3 |  |  |
| 44 | 991.I | $990 \cdot 6$ | 990.2 |  |  |
| 45 | 9910 |  | 990.1 | 9897 |  |
| 46 | 990.9 | $990 \cdot 4$ |  |  |  |
| 47 | 990.8 | 990.3 | $989 \cdot 8$ | $989 \cdot 4$ | 8.9 |
| 48 | 990.7 | 990.2 | 989 | 989.3 | $8 \cdot 8$ |
| 49 | 990.6 | 990.1 |  | 989.2 | 88.7 |
| 50 | 990.5 | 990.0 | 989.5 | 989.1 | $988 \cdot 6$ |

$$
81^{\circ}-85^{\circ}
$$

## VOLUMES.

|  | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $990 \cdot 4$ | 989.9 | $989 \cdot 4$ | 989.0 | 988.; |
| 52 | 990.3 | 989.8 | 989.3 | $988 \cdot 8$ | $988 \cdot 3$ |
| 53 | 990.2 | 989•7 | 989.2 | $988 \cdot 7$ | $988 \cdot 2$ |
| 54 | 990.0 | 989.5 | 989•1 | $988 \cdot 6$ | $988 \cdot 1$ |
| 55 | 990.0 | 989*5 | 989.0 | $988 \cdot 5$ | $988 \cdot 0$ |
| 56 | 989.9 | $989 \cdot 4$ | $988 \cdot 9$ | $988 \cdot 4$ | 987.9 |
| 57 | 989.8 | 989•3 | $988 \cdot 9$ | $988 \cdot 4$ | 987.9 |
| 58 | 989.8 | 989.3 | $988 \cdot 8$ | $988 \cdot 3$ | 987.8 |
| 59 | $989 \cdot 7$ | $989 \cdot 2$ | $988 \cdot 7$ | $988 \cdot 2$ | $987 \%$ |
| 60 | 989.6 | 989•1 | $988 \cdot 6$ | 988.I | $987 \cdot 6$ |
| 61 | $989 \cdot 5$ | $989 \cdot 0$ | $988 \cdot 5$ | $988 \cdot 0$ | $987 \cdot 5$ |
| 62 | 989.4 | $988 \cdot 9$ | $988 \cdot 4$ | 987.9 | 987.4 |
| 63 | 989.4 | 988.9 | $988 \cdot 4$ | 987.9 | $987 \cdot 3$ |
| 64 | $989 \cdot 4$ | $988 \cdot 9$ | $988 \cdot 3$ | 987.8 | 987.3 |
| 65 | 989.3 | $988 \cdot 8$ | $988 \cdot 3$ | $987 \cdot 8$ | $987 \cdot 2$ |
| 66 | $989 \cdot 2$ | $988 \cdot 7$ | $988 \cdot 2$ | $987 \cdot 7$ | $987 \cdot 1$ |
| 67 | 989.1 | $988 \cdot 6$ | $988 \cdot 0$ | 987.5 | $987^{\circ}$ |
| 68 | 9890 | $988 \cdot 5$ | 988.0 | 987.4 | $986 \cdot 9$ |
| 69 | 989.0 | $988 \cdot 4$ | 987.9 | 987.3 | $986 \cdot 8$ |
| 70 | $988 \cdot 9$ | $988 \cdot 4$ | $987 \cdot 8$ | 987.3 | $986 \cdot 8$ |
| 71 | $988 \cdot 9$ | $988 \cdot 3$ | $987 \cdot 8$ | 987.3 | $986 \cdot 7$ |
| 72 | $988 \cdot 8$ | $988 \cdot 3$ | $987 \cdot 7$ | $987 \cdot 2$ | $986 \cdot 7$ |
| 73 | $988 \cdot 8$ | $988 \cdot 2$ | 987.7 | $987 \cdot 1$ | $986 \cdot 6$ |
| 74 | $988 \cdot 7$ | $988 \cdot 2$ | 987.6 | $987 \cdot 1$ | $986 \cdot 5$ |
| 75 | $988 \cdot 7$ | 988.1 | $987 \cdot 6$ | 987.0 | $986 \cdot 5$ |

$81^{\circ}-85^{\circ}$
vOLUMES.

|  | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 988.6 | $988 \cdot 1$ | 987.5 | $987 \cdot 0$ | $986 \cdot 4$ |
| 77 | 988.6 | 988.0 | $987 \cdot 4$ | $986 \cdot 9$ | $986 \cdot 3$ |
| 78 | $988 \cdot 5$ | $987 \cdot 9$ | $987 \cdot 4$ | $986 \cdot 8$ | $986 \cdot 3$ |
| 79 | 988.4 | 987.9 | 987.3 | $986 \cdot 8$ | 986.2 |
| 80 | 988.4 | $987 \cdot 8$ | 987.2 | $986 \cdot 7$ | $986 \cdot 1$ |
| 81 | 988.3 | $987 \cdot 8$ | $987 \cdot 2$ | $986 \cdot 6$ | $986 \cdot 1$ |
| 82 | 988.3 | 987.7 | $987 \cdot 2$ | $986 \cdot 6$ | $986 \cdot 0$ |
| 83 | 988.2 | 987.7 | $987 \cdot 1$ | $986 \cdot 5$ | $986 \cdot 0$ |
| 84 | 988.2 | 987.6 | $987 \cdot 1$ | $986 \cdot 5$ | 985 9 |
| 85 | $988 \cdot 1$ | $987 \cdot 5$ | 987.0 | $986 \cdot 4$ | $985 \cdot 8$ |
| 86 | 988.0 | 987.5 | 986.9 | $986 \cdot 3$ | 985.7 |
| 87 | 988.0 | $987 \cdot 4$ | $986 \cdot 8$ | 986.2 | $985 \cdot 6$ |
| 88 | 987.9 | 987.3 | $986 \cdot 8$ | $986 \cdot 2$ | 985.6 |
| 89 | 987.9 | 987.3 | $986 \cdot 7$ | 986.1 | 985.5 |
| 90 | 987.8 | 987.2 | $986 \cdot 6$ | $986 \cdot 0$ | $985 \cdot 4$ |
| 91 | 987.8 | $987 \cdot 2$ | 986.6 | $986 \cdot 0$ | $985 \cdot 4$ |
| 92 | $987 \cdot 7$ | 987.1. | 986.6 | 985.9 | $985 \cdot 3$ |
| 93 | $987 \cdot 6$ | 987.0 | 986.4 | 985.8 | 985.2 |
| 94 | 987.6 | 987.0 | $986 \cdot 4$ | $985 \cdot 8$ | $985 \cdot 2$ |
| 95 | $987 \cdot 6$ | 987.0 | $986 \cdot 3$ | 985.7 | 985.1 |
| 96 | 987.5 | 986.9 | $986 \cdot 3$ | $985 \cdot 7$ | $985 \cdot 1$ |
| 97 | 987.4 | $986 \cdot 8$ | $986 \cdot 2$ | $985 \cdot 6$ | 985.0 |
| 98 | 987.4 | $986 \cdot 8$ | 989.1 | 985.5 | 984.9 |
| 99 | 987.3 | $986 \cdot 7$ | $986 \cdot 0$ | 985.4 | $984 \cdot 8$ |
| 100 | 987.3 | $986 \cdot 7$ | 986.0 | 985.4 | $984 \cdot 8$ |

$$
86^{\circ}-90^{\circ}
$$

VOLUMES.

| \| | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $996 \cdot 5$ | 996.3 | $996 \cdot 1$ | 995*9 | 995'7 |
| 2 | $996 \cdot 4$ | 996.2 | $996 \cdot 0$ | 995.8 | $995 \cdot 7$ |
| 3 | $996 \cdot 4$ | 996.2 | $996 \cdot 0$ | $995 \cdot 8$ | 995*7 |
| 4 | $996 \cdot 3$ | 996.1 | 995*9 | $995 \cdot 7$ | 995.5 |
| 5 | $996 \cdot 3$ | 996•I | $995 \cdot 9$ | $995 \cdot 7$ | 995'5 |
| 6 | $996 \cdot 2$ | 996.0 | $995 \cdot 8$ | 995•6 | 995:4 |
| 7 | 996.I | 995.9 | $995 \cdot 7$ | 995.5 | 995*3 |
| 8 | 996.I | 995.8 | $995 \cdot 6$ | 995.4 | 995*2 |
| 9 | $996 \cdot 0$ | $995 \cdot 8$ | $995 \cdot 5$ | $995 \cdot 3$ | 995'1 |
| 10 | $995 \cdot 9$ | $995 \cdot 7$ | $995 \cdot 4$ | $995^{\circ} \mathrm{z}$ | $995{ }^{\circ}$ |
| 11 | 995*7 | $995 \cdot 5$ | 995.3 | 995.1 | $994{ }^{\circ}$ |
| 12 | 995.6 | $995 \cdot 4$ | 995'1 | 994.9 | 9947 |
| 13 | 995.4 | $995 \cdot 2$ | $995^{\circ}$ | 994.8 | 9945 |
| 14 | 995.3 | 995* 1 | $994 \cdot 8$ | 994.6 | 994.4 |
| 15 | 995.I | 994.9 | $994 \cdot 6$ | 994.4 | 994*2 |
| 16 | 994*9 | $994 \cdot 7$ | 9945 | $994{ }^{\circ}$ | $994{ }^{\circ}$ |
| 17 | 994.8 | 994.5 | 994.3 | 994.0 | $993 \cdot 8$ |
| 18 | 994.6 | 994.3 | 994.1 | $993 \cdot 8$ | $993 \cdot 6$ |
| 19 | 9943 | 994•1 | $993 \cdot 8$ | 993.5 | 993.2 |
| 20 | $994{ }^{\circ}$ | $993 \cdot 7$ | 993.4 | $993 \cdot 1$ | 992.9 |
| 21 | 993.7 | 993.4 | 993'1 | 992.8 | 992.5 |
| 22 | 993.4 | $993 \cdot 1$ | 992.8 | 992.5 | 992:2 |
| 23 | 993.3 | 993.0 | $992 \cdot 7$ | $992 \cdot 4$ | 992.I |
| 24 | 993.2 | $992 \cdot 8$ | $992 \cdot 5$ | $992 \cdot 2$ | $991 \cdot 9$ |
| 25 | 993.0 | $992 \cdot 7$ | $992 \cdot 4$ | $99^{1 \cdot 1}$ | 991.8 |

$86^{\circ}-90^{\circ}$

## VOLUMES.

| $\mid$ | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 992 | 992.5 | 992.2 | 991*9 | 991.6 |
| 27 | $992 \cdot 6$ | $992 \cdot 3$ | 9920 | 991.6 | 991:3 |
| 28 | 992.4 | $99^{2} 0$ | $991 \cdot 7$ | $991 \cdot 4$ | 9910 |
| 29 | $992 \cdot 1$ | 991.8 | 991.4 | 991•1 | $990 \cdot 8$ |
| 30 | 9919 | $991 \cdot 6$ | 991.2 | 99 | $990 \cdot 5$ |
| 31 | $991 \cdot 7$ | 9913 | $99^{\circ} 0$ | $990 \cdot 6$ | 990.3 |
| 3 | 991.4 | $991 \cdot 1$ | $990 \cdot 7$ | $990 \cdot 3$ | $990 \cdot$ |
| 3. | 991.2 | $990 \cdot 8$ | $990 \cdot 4$ | 990.1 | $9 \cdot 7$ |
| 3t | $990 \cdot 9$ | $990 \cdot 5$ | $990 \cdot 2$ | $989 \cdot 8$ | $9 \cdot 4$ |
| 3 | $990 \cdot 7$ | $990 \cdot 3$ | 989.9 | 989.5 | $\cdot \mathrm{I}$ |
| 36 | $990 \cdot 4$ | $990 \cdot 0$ | $989 \cdot 6$ | $989 \cdot 2$ | $988 \cdot 8$ |
| 37 | $990 \cdot 1$ | $989 \cdot 7$ | $989 \cdot 3$ | $988 \cdot 9$ | $988 \cdot 5$ |
| 38 | 989.8 | 989.4 | $989 \cdot 0$ | $988 \cdot 6$ | $988 \cdot 2$ |
| 39 | 9897 | 989.3 | 988.9 | $988 \cdot 5$ | $988 \cdot \mathrm{I}$ |
| 40 | 989.6 | 989.2 | $988 \cdot 8$ | $988 \cdot 4$ | $988 \cdot 0$ |
| 41 | $989 \cdot 4$ | 989 | $988 \cdot 6$ | $988 \cdot 2$ | 987.7 |
| 42 | $989 \cdot 2$ | $988 \cdot 8$ | $988 \cdot 4$ | 987.9 | 987.5 |
| 43 | $989 \cdot 0$ | $988 \cdot 6$ | $988 \cdot 1$ | 987.7 | 987.3 |
| 44 | 988.9 | $988 \cdot 4$ | $988 \cdot 0$ | 987.5 | 987.0 |
| 45 | $988 \cdot 8$ | $988 \cdot 3$ | 987.9 | 987.4 | 987.0 |
| 46 | $988 \cdot 6$ | $988 \cdot 2$ | 9877 | $987 \cdot 2$ | $986 \cdot 8$ |
| 47 | $988 \cdot 5$ | $988 \cdot 0$ | 987.5 | 987.1 | $986 \cdot 6$ |
| 48 | $988 \cdot 4$ | 987.9 | 987.4 | 987.0 | $986 \cdot 5$ |
| 49 | $988 \cdot 2$ | $987 \cdot 8$ | 987.3 | $986 \cdot 8$ | $986 \cdot 4$ |
| 50 | 988.I | 987.6 | $987 \cdot 2$ | $986 \cdot 7$ | $986 \cdot 2$ |

$$
86^{\circ}-90^{\circ}
$$

VOLUMES.

| 密范 | $86^{\circ}$ | $87^{\circ}$ | S8 ${ }^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 988.0 | $987 \cdot 5$ | 987.1 | $986 \cdot 6$ | 986. 1 |
| 52 | 987.9 | 987.4 | $986 \cdot 9$ | 986.4 | 985.9 |
| 53 | 987.7 | $987 \cdot 3$ | $986 \cdot 8$ | $986 \cdot 3$ | 985.8 |
| 54 | 987.6 | 987-1 | $986 \cdot 6$ | 986.1 | 985.6 |
| 55 | 9875 | $987 \cdot 0$ | $986 \cdot 5$ | $986 \cdot 0$ | $985 \cdot 5$ |
| 56 | 987.4 | $986 \cdot 9$ | $986 \cdot 4$ | 985.9 | $985 \cdot 4$ |
| 57 | 987.4 | $986 \cdot 9$ | $986 \cdot 4$ | 985.8 | 985.3 |
| 58 | 987.3 | $986 \cdot 8$ | $986 \cdot 3$ | 985.8 | 985.3 |
| 59 | 987.2 | $986 \cdot 7$ | $986 \cdot 2$ | $985 \cdot 6$ | $985^{\prime}$ |
| 60 | 987.1 | $986 \cdot 6$ | 986.I | $985 \cdot 6$ | $985 \cdot 0$ |
| 61 | 987.0 | $986 \cdot 5$ | 985*9 | $985 \cdot 4$ | 984.9 |
| 62 | $986 \cdot 8$ | $986 \cdot 3$ | 985.8 | $985 \cdot 3$ | 984.8 |
| 63 | $986 \cdot 8$ | $986 \cdot 3$ | $985 \cdot 8$ | $985 \cdot 2$ | $984 \cdot 7$ |
| 64 | $986 \cdot 8$ | $986 \cdot 3$ | $985 \cdot 7$ | $985 \cdot 2$ | $984 \cdot 7$ |
| 65 | $986 \cdot 7$ | $986 \cdot 2$ | $985 \cdot 7$ | $985 \cdot 1$ | 984.6 |
| 66 | $986 \cdot 6$ | $986 \cdot 1$ | $985 \cdot 5$ | $985 \cdot 0$ | $984 \cdot 5$ |
| 67 | $986 \cdot 4$ | 985.9 | 985.4 | $984 \cdot 8$ | 984.3 |
| 68 | $986 \cdot 3$ | $985 \cdot 8$ | 985.3 | 984.7 | $984^{\circ}$ |
| 69 | $986 \cdot 3$ | $985 \cdot 7$ | $985 \cdot 2$ | 984.6 | 984.1 |
| 70 | $986 \cdot 2$ | $985 \cdot 7$ | $985 \cdot 1$ | 984.6 | 984.0 |
| 71 | $986 \cdot 2$ | 985.6 | $985 \cdot 1$ | $984 \cdot 5$ | 984.0 |
| 72 | 986•1 | 985.5 | 985.0 | 984.4 | 983.9 |
| 73 | $986 \cdot 0$ | 985.5 | 984.9 | 984.4 | $983 \cdot 8$ |
| 74 | $986 \cdot$ | 985.4 | 984.8 | $984 \cdot 3$ | $983 \cdot 7$ |
| 75 | 985\% | $985 \cdot 3$ | $984 \cdot 8$ | 984.2 | $983 \cdot 7$ |

$86^{\circ}-90^{\circ}$
VOLUMES.

|  | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $985 \cdot 8$ | $985 \cdot 3$ | $984 \cdot 7$ | $984 \cdot 2$ | 983.6 |
| 77 | $985 \cdot 8$ | $985 \cdot 2$ | 984.6 | 984.1 | 983.5 |
| 78 | $985 \cdot 7$ | $985 \cdot 1$ | 984.6 | $984 \cdot 0$ | 983.4 |
| 79 | 985.6 | $985 \cdot 1$ | 984.5 | 983.9 | 983.3 |
| 80 | $985 \cdot 5$ | $985 \cdot 0$ | 984.4 | $983 \cdot 8$ | 983.3 |
| 81 | $985 \cdot 5$ | 984.9 | $984 \cdot 3$ | 983.8 | $983 \cdot 2$ |
| 82 | 985.4 | 984.9 | 984.3 | 983.7 | $983 \cdot 2$ |
| 83 | 985.4 | 984.8 | 984.3 | 983.7 | 983.1 |
| 84 | $985 \cdot 3$ | 984.8 | 984.2 | 983.6 | 983.0 |
| 85 | $985^{\cdot 2}$ | $984 \cdot 6$ | 984.1 | 983.5 | $982 \cdot 9$ |
| 86 | $985 \cdot 1$ | 984.5 | 983.9 | 983.4 | $982 \cdot 8$ |
| 87 | 985.0 | 984.5 | 983.9 | $983 \cdot 3$ | $982 \cdot 7$ |
| 88 | 985.0 | 984.4 | 983.8 | $983 \cdot 2$ | 982.6 |
| 89 | 984.9 | 984.3 | 983.7 | $983 \cdot 2$ | $982 \cdot 6$ |
| 90 | 984.8 | $984 \cdot 3$ | $983 \cdot 7$ | $983 \cdot 1$ | $982 \cdot 5$ |
| 91 | $984 \cdot 8$ | $984 \cdot 2$ | $983 \cdot 6$ | 983.0 | $982 \cdot 4$ |
| 92 | 984.7 | 984.1 | 983.5 | 982.9 | $982 \cdot 3$ |
| 93 | $984 \cdot 6$ | 984.0 | 983.4 | $982 \cdot 8$ | $982 \cdot 2$ |
| 94 | 984.6 | 984.0 | 983.4 | $982 \cdot 8$ | $982 \cdot 2$ |
| 95 | 98.45 | 983.9 | 983.3 | $982 \cdot 7$ | 982.I |
| 96 | $984 \cdot 5$ | 983.9 | $983 \cdot 2$ | $982 \cdot 6$ | $982 \cdot 0$ |
| 97 | 984.4 | $983 \cdot 8$ | $983 \cdot 1$ | $982 \cdot 5$ | 981.9 |
| 98 | 984.3 | 983.7 | 983.0 | $982 \cdot 4$ | 981.8 |
| 99 | 984.2 | 983.6 | $982 \cdot 9$ | $982 \cdot 3$ | $981 \cdot 7$ |
| 100 | $984^{2}$ | $983 \cdot 6$ | $982 \cdot 9$ | $982 \cdot 3$ | 981.7 |

$$
91^{\circ}-95^{\circ}
$$

VOLUMES.

|  | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 995.5 | 995*3 | 995*1 | 994*9 | 9947 |
| 2 | 995.4 | 995.2 | 995* | 994.8 | 994.6 |
| 3 | 995*4 | 995*2 | 994*9 | 994.7 | 994.5 |
| 4 | 9953 | 995*1 | 994.9 | 994*7 | 994.4 |
| 5 | 995'3 | $995^{\circ}$ | 994.8 | $994 \cdot 6$ | 9944 |
| 6 | 995.2 | 994*9 | 994.7 | 9945 | 994*3 |
| 7 | 995.1 | 994.8 | 994.6 | 994.4 | $994{ }^{2}$ |
| 8 | 9950 | $994 \cdot 8$ | 994.5 | 994.3 | 994* 1 |
| 9 | 994*9 | 994.7 | $994^{4}$ | 994.2 | 994.0 |
| 10 | $994 \cdot 8$ | 994.5 | 994*3 | $994^{\circ} \mathrm{I}$ | 993.8 |
| 11 | 994.6 | 994*4 | 994* ${ }^{\text {I }}$ | 993*9 | $993 \cdot 7$ |
| 12 | 994.4 | 994.2 | 993.9 | $993 \cdot 7$ | 993.5 |
| 13 | 994.3 | $994{ }^{\circ}$ | 993.8 | 993.5 | 993*3 |
| 14 | 994.I | $993 \cdot 8$ | $993 \cdot 6$ | 993.3 | 993. 1 |
| 15 | 993*9 | $993 \cdot 6$ | 993.4 | $993 \cdot 1$ | 992.9 |
| 16 | 993.7 | 993.4 | 993.2 | 992.9 | 9926 |
| 17 | 993.5 | 993.2 | 993.0 | $992 \cdot 7$ | 992.4 |
| 18 | $993 \cdot 3$ | 993.0 | $992 \cdot 7$ | $992 \cdot 5$ | $992 \cdot 2$ |
| 19 | 993.0 | $992 \cdot 7$ | $992 \cdot 4$ | 992.1 | 991.8 |
| 20 | $992 \cdot 6$ | 992.3 | $992 \cdot$ | 99177 | 991.4 |
| 21 | 992.2 | 991.9 | 991.6 | 991.3 | 991.0 |
| 22 | 991.8 | 9915 | 991.2 | 990.9 | 990.6 |
| 23 | 991.7 | 991.4 | 991.I | 990.8 | 990.5 |
| 24 | 991.6 | 991•3 | $991^{\circ}$ | 990.7 | 990.3 |
| 25 | 991.5 | 991'2 | 990*9 | $990 \cdot 5$ | 990.2 |

VOLUMES.

|  | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 991.2 | $990 \cdot 9$ | $990 \cdot 6$ | 990.3 | 989*9 |
| 27 | 991.0 | $990 \cdot 6$ | 990.3 | 990.0 | $989 \cdot 7$ |
| 28 | $990 \cdot 7$ | $990 \cdot 4$ | $990 \cdot$ | $989 \cdot 7$ | $989 \cdot 3$ |
| 29 | $990 \cdot 4$ | $990 \cdot 1$ | $989 \cdot 7$ | $989 \cdot 4$ | 989.0 |
| 30 | 990.2 | $989 \cdot 8$ | $989 \cdot 5$ | 989•1 | 988.8 |
| 31 | 989.9 | $989 \cdot 5$ | $989 \cdot 2$ | 988.8 | 988.5 |
| 32 | $989 \cdot 6$ | $989 \cdot 2$ | 988.9 | $988 \cdot 5$ | 988.2 |
| 33 | 989.3 | 988.9 | $988 \cdot 6$ | 988.2 | $987 \cdot 8$ |
| 34 | $9^{8} 9^{\circ}$ | $988 \cdot 6$ | $988 \cdot 2$ | $987 \cdot 9$ | $987 \cdot 5$ |
| 35 | $988 \cdot 7$ | 988.3 | 987.9 | : $987 \cdot 5$ | 987.2 |
| 36 | 988.4 | 988.0 | $987 \cdot 6$ | 987.2 | $986 \cdot 8$ |
| 37 | 988.1 | $987 \cdot 7$ | 9873 | 986.9 | $986 \cdot 5$ |
| 38 | $987 \cdot 8$ | 987.3 | 986.9 | $986 \cdot 5$ | $986 \cdot 1$ |
| 39 | $987 \cdot 6$ | 987.2 | $986 \cdot 8$ | 986.4 | 985.9 |
| 40 | 987.5 | $987 \cdot 1$ | $986 \cdot 7$ | 986.3 | 985.8 |
| 41 | $987 \cdot 3$ | $986 \cdot 9$ | $986 \cdot 4$ | 986.0 | $985 \cdot 6$ |
| 42 | 987.I | 986.6 | 986.2 | $985 \cdot 7$ | $985 \cdot 3$ |
| 43 | $986 \cdot 8$ | $986 \cdot 4$ | 985.9 | $985 \cdot 5$ | 985. |
| 44 | $986 \cdot 6$ | $986 \cdot 1$ | $985 \cdot 7$ | 985:2 | 984.8 |
| 45 | $986 \cdot 5$ | 986.0 | 9856 | 985:I | 984.7 |
| 46 | $986 \cdot 3$ | 985.9 | $985 \cdot 4$ | 9849 | 984.5 |
| 47 | 986.1 | $985 \cdot 7$ | $985 \cdot 2$ | 9847 | 984.3 |
| 48 | $986 \cdot 0$ | 985.5 | $985 \cdot 1$ | $984 \cdot 6$ | 984.I |
| 49 | 985.9 | $985 \cdot 4$ | 984.9 | 984.5 | 984.0 |
| 50 | 9857 | 985.3 | $984 \cdot 8$ | 9843 | $983 \cdot 8$ |

$$
91^{\circ}-95^{\circ}
$$

VOLUMES.

| $\mid$ | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $985 \cdot 6$ | 985.I | 984.6 | 984.2 | $983 \cdot 7$ |
| 52 | $985 \cdot 4$ | 984.9 | 984.5 | 984.0 | 983.5 |
| 53 | $985 \cdot 3$ | $984 \cdot 8$ | 984.3 | 983.8 | $983 \cdot 3$ |
| 54 | 985.I | 984.6 | $984 \cdot 1$ | $983 \cdot 6$ | $983 \cdot 1$ |
| 55 | $985 \cdot 0$ | 984.5 | 983.9 | 983.4 | 982.9 |
| 56 | 984.9 | 984.4 | 983.9 | $983 \cdot 3$ | $982 \cdot 8$ |
| 57 | 984.8 | $984 \cdot 3$ | 983.8 | $983 \cdot 3$ | $982 \cdot 8$ |
| 58 | 984.8 | 984.2 | $983 \cdot 7$ | $983 \cdot 2$ | $982 \cdot 7$ |
| 59 | 984.6 | 984.1 | $983 \cdot 6$ | $983 \cdot 1$ | 982.6 |
| 60 | 984.5 | 984.0 | 983.5 | 983.0 | $982 \cdot 5$ |
| 61 | 984.4 | 983.9 | $983 \cdot 3$ | $982 \cdot 8$ | $982 \cdot 4$ |
| 62 | 984.2 | 983.7 | $983 \cdot 2$ | $982 \cdot 6$ | $982 \cdot 1$ |
| 63 | $984^{-2}$ | 983.7 | $983 \cdot 1$ | $982 \cdot 6$ | $982 \cdot 1$ |
| 64 | 984.2 | 983.6 | $983 \cdot 1$ | $982 \cdot 6$ | 982.0 |
| 65 | 984.1 | 983.5 | 983.0 | $982 \cdot 5$ | 982.0 |
| 66 | 983.9 | 983.4 | 982.9 | $982 \cdot 3$ | $98 \mathrm{I} \cdot 8$ |
| 67 | 983.8 | $983 \cdot 2$ | $982 \cdot 7$ | $982 \cdot 1$ | $981 \cdot 6$ |
| 68 | 983.6 | $983 \cdot 1$ | $982 \cdot 5$ | $982 \cdot 0$ | 98I-5 |
| 69 | 983.5 | $983 \cdot 0$ | $982 \cdot 4$ | $981 \cdot 9$ | $98 \mathrm{I} \cdot 3$ |
| 70 | 983.5 | $982 \cdot 9$ | $982 \cdot 4$ | 981.8 | 981.3 |
| 71 | 983.4 | $982 \cdot 9$ | $982 \cdot 3$ | 981.8 | $98 \mathrm{I} \cdot 2$ |
| 72 | $983 \cdot 3$ | $982 \cdot 8$ | $982 \cdot 2$ | $981 \cdot 7$ | $98 \mathrm{I} \cdot \mathrm{I}$ |
| 73 | $983 \cdot 3$ | $982 \cdot 7$ | $982 \cdot 2$ | 981.6 | $981 \cdot 0$ |
| 74 | $983 \cdot 2$ | $982 \cdot 6$ | $982 \cdot 1$ | 98I.5 | 980.9 |
| 75 | $983 \cdot 1$ | $982 \cdot 5$ | $982 \cdot 0$ | 981.4 | $980 \cdot 8$ |

$-95^{\circ}$

## VOLUMES.

|  | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 98 |  |  |  |  |
| 77 | 982.9 | $982 \cdot 4$ | 981.8 |  |  |
| 78 | 982.9 | 982-3 |  |  |  |
| 79 | $982 \cdot 8$ | $982 \cdot 2$ |  |  |  |
| 80 | $982 \cdot 7$ |  |  |  |  |
| 81 | 98 |  |  |  |  |
| 82 | $982 \cdot 6$ | $982 \cdot 0$ | 981.4 |  |  |
| 83 | $982 \cdot 6$ | $982 \cdot 0$ | $98 \mathrm{I} \cdot 4$ |  |  |
| 84 | 98 |  |  |  |  |
| 85 | 98 |  |  |  |  |
| 86 | $982 \cdot 2$ | $981 \cdot 6$ | $98 \mathrm{I} \cdot 0$ |  | -8 |
| 87 | 98 |  |  |  | 9797 |
| 88 |  |  |  |  | 979.7 |
| 89 | 982 |  | $980 \cdot 8$ |  | 970. |
| 90 |  |  |  |  | 979 |
| 91 |  |  |  | $980 \cdot 0$ | 979 |
| 92 | 981 |  |  |  | 979 |
| 93 | $981 \cdot 6$ | 981.0 |  | 979 | 979 |
| 94 | $981 \cdot 6$ | 981.0 |  | 9797 | 79 |
| 95 | 981.5 | 980 |  | 979.6 |  |
| 96 | $981 \cdot 4$ | $980 \cdot 8$ |  | 979.6 |  |
| 97 | $98 \mathrm{I} \cdot 3$ | $980 \cdot 7$ | $980 \cdot 0$ | $979 \cdot 4$ |  |
| 98 | $981 \cdot 2$ | $980 \cdot 6$ |  | 979*3 | 978 |
| 99 | $98 \mathrm{I} \cdot 1$ | $980 \cdot 5$ | $979 \cdot 8$ | 979.2 | 978.6 |
| 100 | $981 \cdot 1$ | $980 \cdot 5$ | $979 \cdot 8$ | $979 \cdot 2$ | $978 \cdot 6$ |

$96^{\circ}-100^{\circ}$
VOLUMES.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 994*4 | 994*2 | 994*0 | $993 \cdot 7$ | 993.5 |
| 2 | $994 * 4$ | $994^{\circ} \mathrm{I}$ | 993.9 | 993.7 | 993.4 |
| 3 | 9943 | $994^{\circ}$ | $993 \cdot 8$ | $993 \cdot 6$ | $993 \cdot 3$ |
| 4 | $994^{\circ}$ | $994^{\circ}$ | $993 \cdot 7$ | 993.5 | $993 \cdot 3$ |
| 5 | $994^{\circ} \mathrm{I}$ | 993.9 | $993 \cdot 7$ | 993.4 | $993{ }^{\circ}$ |
| 6 | 994* | $993 \cdot 8$ | 993.5 | 993.3 | 993.1 |
| 7 | 993.9 | $993 \cdot 7$ | $993 \cdot 4$ | $993{ }^{\circ}$ | $99^{2.9}$ |
| 8 | $993 \cdot 8$ | $993 \cdot 6$ | $993 \cdot 3$ | 993.1 | $992 \cdot 9$ |
| 9 | 993.7 | 993.4 | $993 \cdot 2$ | 992.9 | $992 \cdot 7$ |
| 10 | $993 \cdot 6$ | 993.3 | $993 \cdot 1$ | $992 \cdot 8$ | $992 \cdot 6$ |
| 11 | 993.4 | 993*I | 992.9 | $992 \cdot 6$ | 992.4 |
| 12 | 993.2 | 992.9 | $992 \cdot 7$ | 992.4 | $992 \cdot 1$ |
| 13 | 993.0 | $992 \cdot 7$ | $992 \cdot 5$ | $992 \cdot 2$ | 991.9 |
| 14 | $992 \cdot 8$ | $992 \cdot 5$ | $992 \cdot 3$ | $99^{\circ} \cdot$ | 991.7 |
| 15 | $992 \cdot 6$ | $992 \cdot 3$ | 992.0 | 991.8 | 991.5 |
| 16 | $992 \cdot 4$ | $99^{2 \cdot 1}$ | 991.8 | 9915 | $991 \cdot 2$ |
| 17 | 992.1 | 991.8 | 991.5 | 991.3 | $991 \cdot 0$ |
| 18 | 991.9 | $991 \cdot 6$ | 991.3 | 991.0 | 990.7 |
| 19 | 991.5 | 991.2 | $990 \cdot 9$ | $990 \cdot 6$ | $990 \cdot 3$ |
| 20 | $991 \cdot 1$ | $990 \cdot 8$ | $990 \cdot 4$ | 990.1 | 989•8 |
| 21 | 990.6 | $990 \cdot 3$ | $990 \cdot 0$ | $989 \cdot 7$ | 9893 |
| 22 | $990 \cdot 2$ | 989.9 | 989.6 | 989.2 | $988 \cdot 9$ |
| 23 | 990.I | 989.8 | 989.5 | 989.1 | 988.8 |
| 24 | $990 \cdot 0$ | $989 \cdot 7$ | $989 \cdot 3$ | 989.0 | $988 \cdot 7$ |
| 25 | 989.9 | $989 \cdot 6$ | $989 \cdot 2$ | 988.9 | $988 \cdot 6$ |

$96^{\circ}-100^{\circ}$
VOLUMES.

| $\mid$ | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 989.6 | 989.3 | $988 \cdot 9$ | $988 \cdot 6$ | $988 \cdot 2$ |
| 27 | 989.3 | 989.0 | $988 \cdot 6$ | $988 \cdot 3$ | 987.9 |
| 28 | 989 ${ }^{\circ}$ | $988 \cdot 6$ | $988 \cdot 3$ | 987.9 | $987 \cdot 6$ |
| 29 | $988 \cdot 7$ | $988 \cdot 3$ | $988 \cdot 0$ | $987 \cdot 6$ | 987.3 |
| 30 | $988 \cdot 4$ | $988 \cdot 0$ | 9877 | 987.3 | $987 \cdot 0$ |
| 31 | 988.I | $987 \cdot 7$ | $987 \cdot 4$ | 987.0 | $986 \cdot 6$ |
| 32 | 987.8 | 987.4 | 987.0 | $986 \cdot 6$ | $986 \cdot 3$ |
| 33 | 987.4 | 987.0 | $986 \cdot 7$ | 986.3 | 985.9 |
| 34 | $987 \cdot 1$ | $986 \cdot 7$ | $986 \cdot 3$ | $985^{\circ} 9$ | $985 \cdot 5$ |
| 35 | $986 \cdot 8$ | $986 \cdot 4$ | $986 \cdot 0$ | $985 \cdot 6$ | 985.2 |
| 36 | $986 \cdot 4$ | $986 \cdot 0$ | $985 \cdot 6$ | 985.2 | $984 \cdot 8$ |
| 37 | $986 \cdot$ | $985 \cdot 6$ | $985 \cdot 2$ | 984.8 | 984.4 |
| 38 | $985 \cdot 6$ | $985 \cdot 2$ | 984.8 | 984.4 | 983.9 |
| 39 | 985.5 | $985 \cdot 1$ | 984.7 | 984.2 | $983 \cdot 8$ |
| 40 | $985 \cdot 4$ | $985 \cdot 0$ | 984.5 | 984.1 | 983.7 |
| 41 | 985.1 | 984.7 | 984.3 | $983 \cdot 8$ | 983.4 |
| 42 | 984.9 | 984.4 | 984.0 | 983.5 | $983 \cdot 1$ |
| 43 | $984 \cdot 6$ | $984 \cdot 1$ | 983.6 | $983 \cdot 2$ | $982 \cdot 7$ |
| 44 | 984.3 | 983.8 | 983.4 | 982.9 | $982 \cdot 5$ |
| 45 | 984.2 | 983.7 | 983.3 | $982 \cdot 8$ | $982 \cdot 3$ |
| 46 | $984{ }^{\circ}$ | 983.5 | $983 \cdot 1$ | $982 \cdot 6$ | $982 \cdot 1$ |
| 47 | 983.8 | 983.3 | $982 \cdot 8$ | $982 \cdot 4$ | 981.9 |
| 48 | $983 \cdot 6$ | $983 \cdot 2$ | $982 \cdot 7$ | $982 \cdot 2$ | $98 \mathrm{I} \cdot 8$ |
| 49 | 983.5 | 983.0 | $982 \cdot 5$ | $982 \cdot 1$ | $98 \mathrm{I} \cdot 6$ |
| 50 | 983.3 | $982 \cdot 8$ | 982.4 | 981.9 | $98 \mathrm{I} \cdot 4$ |

$$
96^{\circ}-100^{\circ}
$$

## VOLUMES.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 983.2 | $982 \cdot 7$ | $982 \cdot 2$ | 981.7 | 981.2 |
| 52 | 983.0 | $982 \cdot 5$ | $982 \cdot 0$ | 981.5 | 981.0 |
| 53 | $982 \cdot 8$ | $982 \cdot 3$ | $98 \mathrm{I} \cdot 8$ | 981.3 | $980 \cdot 8$ |
| 54 | $982 \cdot 6$ | $982 \cdot 1$ | 981.6 | 981.I | 980.6 |
| 55 | 982.4 | 981.9 | $98 \mathrm{I} \cdot 4$ | $980 \cdot 9$ | $980 \cdot 4$ |
| 56 | $982 \cdot 3$ | 981.8 | $981 \cdot 3$ | $980 \cdot 8$ | $980 \cdot 3$ |
| 57 | $982 \cdot 3$ | $98 \mathrm{I} \cdot 8$ | $98 \mathrm{I} \cdot 3$ | $980 \cdot 7$ | $980 \cdot 2$ |
| 58 | $982 \cdot 2$ | $981 \cdot 7$ | 981.2 | $980 \cdot 6$ | $980 \cdot 1$ |
| 59 | 982.0 | 981.5 | $981 \cdot 0$ | 980.5 | $980 \cdot 0$ |
| 60 | 981.9 | 981.4 | $980 \cdot 9$ | $980 \cdot 4$ | 979:8 |
| 61 | 981.8 | 981-2 | $980 \cdot 7$ | $980 \cdot 2$ | 979.6 |
| 62 | $981 \cdot 6$ | 981.0 | $980 \cdot 5$ | $980 \cdot 0$ | 979.4 |
| 63 | 981.5 | 981.0 | $980 \cdot 5$ | 979.9 | 979.4 |
| 64 | 981.5 | $981 \cdot 0$ | $980 \cdot 4$ | 979.9 | 979.4 |
| 65 | 981.4 | $980 \cdot 9$ | $980 \cdot 3$ | $979 \cdot 8$ | 979'3 |
| 66 | 981.2 | $980 \cdot 7$ | $980 \cdot 2$ | 979.6 | 979 ${ }^{\circ} \mathrm{I}$ |
| 67 | 981.I | $980 \cdot 5$ | $980 \cdot 0$ | 979.4 | $978 \cdot 9$ |
| 68 | $980 \cdot 9$ | $980 \cdot 3$ | $979 \cdot 8$ | 979.2 | $978 \cdot 7$ |
| 69 | $980 \cdot 7$ | $980 \cdot 2$ | $979 \cdot 6$ | $979^{\circ} \mathrm{I}$ | $978 \cdot 5$ |
| 70 | $980 \cdot 7$ | $980 \cdot 1$ | $979 \cdot 6$ | $979{ }^{\circ}$ | $978 \cdot 5$ |
| 71 | $980 \cdot 7$ | $980 \cdot 1$ | 979.5 | $979^{\circ}$ | $978 \cdot 4$ |
| 72 | $980 \cdot 6$ | $980 \cdot 0$ | 979.4 | $978 \cdot 9$ | $978 \cdot 3$ |
| 73 | $980 \cdot 5$ | 979.9 | 979.3 | $978 \cdot 8$ | $978 \cdot 2$ |
| 74 | $980 \cdot 4$ | 979.8 | 979.2 | $978 \cdot 7$ | $978 \cdot 1$ |
| 75 | $980 \cdot 3$ | 979.7 | $979{ }^{\circ} \mathrm{I}$ | $978 \cdot 6$ | $978 \cdot 0$ |

$96^{\circ}-100^{\circ}$
VOLUMES.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $980 \cdot 2$ | $979 \cdot 6$ | 979 ${ }^{\text {I }}$ | $978 \cdot 5$ | 977.9 |
| 77 | $980 \cdot 1$ | 979.5 | $978 \cdot 9$ | $978 \cdot 4$ | 977.8 |
| 78 | $980 \cdot 0$ | $979 \cdot 4$ | $978 \cdot 9$ | $978 \cdot 3$ | $977 \cdot 7$ |
| 79 | 979.9 | 979*3 | $978 \cdot 8$ | $978 \cdot 2$ | $977 \cdot 6$ |
| 80 | 979•8 | 979.2 | $978 \cdot 6$ | 978.1 | $977 \cdot 5$ |
| 81 | 979*7 | $979{ }^{\circ}$ | $978 \cdot 6$ | $978 \cdot 0$ | 977*4 |
| 82 | 979*7 | 979 ${ }^{\text {I }}$ | $978 \cdot 5$ | $978 \cdot 0$ | 977.4 |
| 83 | $979{ }^{\circ} 7$ | 979*I | $978 \cdot 5$ | $977 \cdot 9$ | 977*4 |
| 84 | $979 \cdot 6$ | $979{ }^{\circ}$ | $978 \cdot 4$ | $977 \cdot 8$ | 977.2 |
| 85 | 979.4 | $978 \cdot 8$ | $978 \cdot 2$ | $977 \cdot 6$ | 977•1 |
| 86 | $979{ }^{\circ} 2$ | $978 \cdot 6$ | $978 \cdot 0$ | 977.5 | $976 \cdot 9$ |
| 87 | 979 ${ }^{\text {I }}$ | $978 \cdot 5$ | $977 \cdot 9$ | 977*3 | $976 \cdot 7$ |
| 88 | 979 ${ }^{\text {I }}$ | $978 \cdot 5$ | $977 \cdot 9$ | 977.3 | $976 \cdot 7$ |
| 89 | $979^{\circ}$ | $978 \cdot 4$ | 977.8 | $977 \cdot 2$ | $976 \cdot 6$ |
| 90 | 978.9 | $978 \cdot 3$ | $977 \cdot 7$ | 977.0 | $976 \cdot 5$ |
| 91 | $978 \cdot 8$ | $978 \cdot 2$ | $977 \cdot 5$ | $976 \cdot 9$ | $976 \cdot 3$ |
| 92 | $978 \cdot 7$ | $978 \cdot 0$ | $977 \cdot 4$ | $976 \cdot 8$ | $976 \cdot 2$ |
| 93 | $978 \cdot 5$ | 977*9 | 977.3 | $976 \cdot 7$ | $976 \cdot 1$ |
| 94 | $978 \cdot 5$ | $977 \cdot 9$ | 977-3 | $976 \cdot 7$ | $976 \cdot 1$ |
| 95 | $978 \cdot 4$ | $977 \cdot 7$ | 977 ${ }^{\text {I }}$ | $976 \cdot 4$ | $975 \cdot 8$ |
| 96 | $978 \cdot 3$ | $977 \cdot 7$ | $977^{\circ}$ | $976 \cdot 4$ | 975.7 |
| 97 | $978 \cdot 2$ | $977 \cdot 5$ | $976 \cdot 9$ | $976 \cdot 2$ | $975 \cdot 6$ |
| 98 | $978 \cdot \mathrm{I}$ | $977 \cdot 4$ | $976 \cdot 8$ | $976 \cdot 1$ | 975.5 |
| 99 | 978.0 | $977 \cdot 3$ | $976 \cdot 7$ | $976 \cdot 0$ | 975.4 |
| 100 | $978 \cdot 0$ | $977 \cdot 3$ | $976 \cdot 7$ | $976 \cdot 0$ | $975 \cdot 4$ |

## TABLE III.

Showing the commercial value, or decimal proportion of the volume occupied by any spirituous liquor, at any temperature between $20^{\circ}$ and $100^{\circ}$ Fahr., which is to be considered pure alcohol at $60^{\circ}$ Fahrenheit.

In the use of this table the gauging and proving must always be performed at the same temperature.
Gig on



$$
21^{\circ}-25^{\circ}
$$

COMMERCIAL VALUE.

|  | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $0 \cdot 79$ | 0.83 | 0.88 | 0.92 | 0.97 |
| 2 | 1.80 | I.86 | $1 \times 9$ | 1.97 | 2.02 |
| 3 | $2 \cdot 84$ | $2 \cdot 90$ | $2 \cdot 95$ | 3.01 | 3.06 |
| 4 | 3.90 | 3.95 | 4.01 | $4 \cdot 06$ | 4•1 1 |
| 5 | 4.95 | $5 \cdot 00$ | $5 \cdot 06$ | $5 \cdot 11$ | $5 \cdot 17$ |
| 6 | $6 \cdot 07$ | $6 \cdot 12$ | 6.18 | $6 \cdot 23$ | $6 \cdot 29$ |
| 7 | $7 \cdot 20$ | $7 \cdot 25$ | $7 \cdot 31$ | $7 \cdot 36$ | $7 \cdot 42$ |
| 8 | $8 \cdot 34$ | 8.39 | $8 \cdot 45$ | $8 \cdot 50$ | $8 \cdot 55$ |
| 9 | $9 \cdot 48$ | 9.53 | $9 \cdot 58$ | $9 \cdot 63$ | $9 \cdot 68$ |
| 10 | 10.62 | 10.66 | 10.71 | 10.75 | 10.80 |
| 11 | I 1.95. | I I $\times 99$ | 12.04 | 12.08 | $12 \cdot 13$ |
| 12 | 13.24 | 13.28 | 13.32 | 13.36 | 13.40 |
| 13 | 14.53 | 14.57 | 14.60 | 14.64 | 14.68 |
| 14 | $15 \cdot 82$ | 15.85 | 15.87 | 15.90 | 15.93 |
| 15 | 17.25 | 17.26 | $17 \cdot 28$ | $17 \cdot 29$ | $17 \cdot 30$ |
| 16 | 18.76 | $18 \cdot 77$ | 18.77 | $18 \cdot 78$ | $18 \cdot 78$ |
| 17 | $20 \cdot 30$ | $20 \cdot 28$ | $20 \cdot 27$ | $20 \cdot 25$ | $20 \cdot 24$ |
| 18 | $2 \mathrm{I} \cdot 80$ | 21.78 | $2 \mathrm{I} \cdot 75$ | 21.72 | $21 \cdot 70$ |
| 19 | 23.45 | 23.40 | $23 \cdot 36$ | 23.31 | 23.26 |
| 20 | $25 \cdot 17$ | $25 \cdot 10$ | 25.04 | 24.97 | 24.90 |
| 21 | $26 \cdot 92$ | 26.82 | $26 \cdot 73$ | $26 \cdot 63$ | $26 \cdot 53$ |
| 22 | 28.68 | 28.55 | 28.43 | $28 \cdot 30$ | 28.18 |
| 23 | 30.30 | $30 \cdot 15$ | 29.99 | $29 \cdot 84$ | $29 \cdot 69$ |
| 24 | $3 \mathrm{I} \cdot 89$ | $3 \mathrm{I} \cdot 71$ | 31.54 | $3 \mathrm{I} \cdot 36$ | 31.18 |
| 25 | 33.50 | $33 \cdot 30$ | 33.09 | $32 \cdot 89$ | $32 \cdot 68$ |

$$
21^{\circ}-25^{\circ}
$$

COMMERCIAL VALUE.

| 番 | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $35 \cdot 17$ | 34.94 | 34.70 | 34.47 | 34.23 |
| 27 | $36 \cdot 83$ | $36 \cdot 57$ | $36 \cdot 30$ | 36:04 | $35 \cdot 77$ |
| 28 | $38 \cdot 51$ | $38 \cdot 21$ | $37 \cdot 92$ | $37 \cdot 62$ | $37 \cdot 32$ |
| 29 | $40 \cdot 12$ | $39 \cdot 80$ | 39.47 | $39^{\circ} \mathrm{I} 5$ | $38 \cdot 83$ |
| 30 | $41 \cdot 73$ | $41 \cdot 38$ | $41 \cdot 02$ | $40 \cdot 67$ | $40 \cdot 32$ |
| 31 | $43 \cdot 31$ | 42.93 | $42 \cdot 54$ | $42 \cdot 16$ | 4177 |
| 32 | 44.60 | 44.19 | $43 \cdot 79$ | $43 \cdot 38$ | 42.97 |
| 33 | 45.91 | $45 \cdot 48$ | $45 \cdot 06$ | $44 \cdot 63$ | $44^{2} 20$ |
| 34 | 47.06 | $46 \cdot 63$ | $46 \cdot 19$ | $45 \cdot 76$ | $45 \cdot 33$ |
| 35 | $48 \cdot 14$ | 47.70 | $47 \cdot 25$ | $46 \cdot 8 \mathrm{I}$ | $46 \cdot 36$ |
| 36 | $49 \cdot 25$ | $48 \cdot 79$ | $48 \cdot 33$ | 47.87 | $47 \cdot 41$ |
| 37 | 50.41 | 49.94 | $49 \cdot 48$ | 49.01 | $48 \cdot 55$ |
| 38 | 51.59 | 51.12 | $50 \cdot 64$ | 50.17 | $49 \cdot 69$ |
| 39 | $52 \cdot 23$ | 5177 | $5 \mathrm{I} \cdot 30$ | $50 \cdot 84$ | $50 \cdot 38$ |
| 40 | 52.93 | 52.49 | $52 \cdot 04$ | 51.60 | $51 \cdot 16$ |
| 41 | 53.66 | 53.23 | $52 \cdot 79$ | $52 \cdot 36$ | 51.93 |
| 42 | 54.44 | 54.02 | $53 \cdot 61$ | 53.19 | $52 \cdot 77$ |
| 43 | $55 \cdot 18$ | 54.78 | 54.38 | 53.98 | 53.58 |
| 44 | 56.00 | $55 \cdot 61$ | 55.21 | 54.82 | 54.42 |
| 45 | 56.85 | 56.47 | - 56.08 | 55.70 | $55 \cdot 32$ |
| 46 | 57.71 | 57.33 | $56 \cdot 94$ | $56 \cdot 56$ | 56.18 |
| 47 | $58 \cdot 53$ | $58 \cdot 16$ | 57.78 | 57.41 | 57:04 |
| 48 | $59 \cdot 30$ | 58.94 | $58 \cdot 58$ | $58 \cdot 22$ | 57.86 |
| 49 | $60 \cdot 10$ | $59 \cdot 76$ | 59.41 | 59.07 | $58 \cdot 72$ |
| 50 | 60.97 | $60 \cdot 63$ | 60.28 | 59.94 | $59 \cdot 60$ |

$$
21^{\circ}-25^{\circ}
$$

## COMMERCIAL VALUE

| 戓定家 | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $6 \mathrm{I} \cdot 86$ | 61．52 | 6I•19 | 60.85 | $60 \cdot 52$ |
| 52 | $62 \cdot 77$ | $62 \cdot 44$ | $62 \cdot 10$ | 61．77 | 61．43 |
| 53 | $63 \cdot 66$ | $63 \cdot 33$ | 63.01 | 62.68 | $62 \cdot 35$ |
| 54 | 64.48 | $64 \cdot 16$ | $63 \cdot 85$ | 63.53 | 63.21 |
| 55 | $65 \cdot 29$ | 64.98 | $64 \cdot 68$ | 64.37 | 64.07 |
| 56 | $66 \cdot 2 \mathrm{I}$ | 65.91 | $65 \cdot 60$ | $65 \cdot 30$ | 65.00 |
| 57 | $67 \cdot 12$ | $66 \cdot 82$ | $66 \cdot 51$ | $66 \cdot 21$ | $65 \cdot 91$ |
| 58 | 68.03 | $67 \cdot 73$ | $67 \cdot 43$ | $67 \cdot 13$ | $66 \cdot 83$ |
| 59 | $68 \cdot 94$ | 68.65 | $68 \cdot 37$ | 68.08 | 67.79 |
| 60 | $69 \cdot 84$ | 69.56 | $69 \cdot 27$ | $68 \cdot 99$ | 68．71 |
| 61 | $70 \cdot 78$ | $70 \cdot 50$ | 70．21 | 69.93 | $69 \cdot 65$ |
| 62 | $71 \cdot 75$ | 71.47 | 71－18 | 70.90 | $70 \cdot 62$ |
| 63 | 72.67 | $72 \cdot 39$ | $72 \cdot 12$ | 71.84 | 71.56 |
| 64 | 73.63 | 73.35 | 73.08 | 72.80 | 72.53 |
| 65 | 74.59 | $74 \cdot 32$ | 74.05 | 73.78 | 73.51 |
| 66 | 75.57 | $75 \cdot 30$ | 75.03 | 74.76 | 74.49 |
| 67 | $76 \cdot 58$ | $76 \cdot 31$ | 76.04 | 75.77 | 75.50 |
| 68 | $77 \cdot 48$ | $77 \cdot 21$ | $76 \cdot 95$ | $76 \cdot 68$ | $76 \cdot 41$ |
| 69 | $78 \cdot 37$ | $78 \cdot 11$ | 77.84 | 77.58 | $77 \cdot 32$ |
| 70 | $79 \cdot 32$ | 79.05 | $78 \cdot 79$ | $78 \cdot 52$ | $78 \cdot 26$ |
| 71 | 80.27 | 80.01 | 79.74 | $79 \cdot 48$ | 79.21 |
| 72 | 8I．2I | 80.95 | $80 \cdot 70$ | $80 \cdot 44$ | $80 \cdot 18$ |
| 73 | $82 \cdot 17$ | $8 \mathrm{I} \cdot 9 \mathrm{I}$ | $8 \mathrm{I} \cdot 65$ | 81．39 | 8I•I3 |
| 74 | $83 \cdot 11$ | $82 \cdot 85$ | $82 \cdot 60$ | $82 \cdot 34$ | 82.09 |
| 75 | 84.05 | $83 \cdot 80$ | 83.54 | 83.29 | 83.03 |

$21^{\circ}-25^{\circ}$
COMMERCIAL VALUE.

|  | $21^{\circ}$ | $22^{\circ}$ | $23^{\circ}$ | $24^{\circ}$ | $25^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 85.01 | 84.76 | 84.52 | 84.27 | 84.02 |
| 77 | 85.99 | $85 \cdot 74$ | 85.49 | $85 \cdot 24$ | 84.99 |
| 78 | $86 \cdot 96$ | 86.71 | $86 \cdot 47$ | $86 \cdot 22$ | 85.97 |
| 79 | 87.91 | 87.67 | 87.42 | 87-18 | $86 \cdot 93$ |
| 80 | 88.87 | $88 \cdot 62$ | $88 \cdot 38$ | $88 \cdot \mathrm{I} 3$ | 87.88 |
| 81 | 89.85 | 89.61 | $89 \cdot 36$ | $89 \cdot 12$ | 88.88 |
| 82 | 90.83 | 90.58 | $90 \cdot 34$ | 90.09 | 89.84 |
| 83 | 91.8I | 91.56 | 91.32 | 91.07 | $90 \cdot 83$ |
| 84 | 92.74 | 92.50 | $92 \cdot 25$ | $92 \cdot 01$ | 91.77 |
| 85 | $93 \cdot 64$ | 93.40 | $93 \cdot 16$ | $92 \cdot 92$ | $92 \cdot 68$ |
| 86 | 94.55 | $94 \cdot 32$ | 94.08 | $93 \cdot 85$ | $93 \cdot 62$ |
| 87 | 95.47 | $95 \cdot 24$ | $95 \cdot 00$ | 94.77 | 94.54 |
| 88 | $96 \cdot 39$ | 96•15 | $95 \cdot 92$ | $95 \cdot 68$ | 95.45 |
| 89 | $97 \cdot 32$ | 97.09 | $96 \cdot 85$ | $96 \cdot 62$ | $96 \cdot 39$ |
| 90 | 98-17 | 97.95 | $97 \cdot 73$ | 97.51 | 97-29 |
| 91 | 99.00 | $98 \cdot 79$ | $98 \cdot 57$ | $98 \cdot 36$ | 98-14 |
| 92 | 99.91 | 99*70 | $99 \cdot 49$ | 99.28 | 99.07 |
| 93 | $100 \cdot 84$ | $100 \cdot 62$ | 100.41 | $100 \cdot 19$ | 99.98 |
| 94 | 101.66 | IOI.45 | 101.25 | 101.04 | $100 \cdot 83$ |
| 95 | 102.48 | 102.27 | 102.07 | IOI.86 | IOI. 66 |
| 96 | 103.28 | 103.08 | 102.87 | 102.67 | 102.46 |
| 97 | 104.06 | 103.86 | 103.65 | 103.45 | 103.24 |
| 98 | 104.87 | 104.69 | 10450 | $1043{ }^{2}$ | 104.13 |
| 99 | 105.68 | 105.45 | 105.23 | 105.00 | 104.77 |
| 100 | $106 \cdot 60$ | $106 \cdot 43$ | 106.25 | 106.08 | 105.90 |

$$
26^{\circ}-30^{\circ}
$$

COMMERCIAL VALUE．

| 気家号 | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $1 \cdot 05$ | I 13 | I．2I | 1.29 | 1．37 |
| 2 | 2.08 | $2 \cdot 15$ | $2 \cdot 21$ | $2 \cdot 28$ | $2 \cdot 34$ |
| 3 | $3 \cdot 12$ | 3．18 | $3 \cdot 23$ | 3.29 | $3 \cdot 35$ |
| 4 | $4 \cdot 16$ | 4.22 | $4 \cdot 27$ | 433 | 4.38 |
| 5 | $5 \cdot 2 \mathrm{I}$ | $5 \cdot 26$ | $5 \cdot 30$ | $5 \cdot 35$ | $5 \cdot 39$ |
| 6 | $6 \cdot 33$ | $6 \cdot 37$ | $6 \cdot 42$ | $6 \cdot 46$ | $6 \cdot 50$ |
| 7 | $7 \cdot 46$ | 7.50 | $7 \cdot 55$ | $7 \cdot 59$ | $7 \cdot 63$ |
| 8 | $8 \cdot 59$ | $8 \cdot 63$ | $8 \cdot 66$ | $8 \cdot 70$ | $8 \cdot 74$ |
| 9 | 972 | 975 | $9 \cdot 79$ | $9 \cdot 82$ | $9 \cdot 86$ |
| 1.0 | 10.83 | 10.86 | 10.90 | 10.93 | 10.96 |
| 11 | $12 \cdot 16$ | 12.18 | 12.21 | 12.23 | 12.26 |
| 12 | I 3.42 | 13.44 | 13.46 | 13.48 | 13.50 |
| 13 | 14.69 | 14.70 | 14.70 | 14.71 | 14.72 |
| 14 | 15.93 | 15.93 | 15.94 | 15.94 | 15.94 |
| 15 | 17.29 | $17 \cdot 29$ | 17.28 | 17.28 | 17.27 |
| 16 | $18 \cdot 76$ | $18 \cdot 74$ | $18 \cdot 71$ | 18.69 | 18.67 |
| 17 | $20 \cdot 20$ | $20 \cdot 16$ | $20 \cdot 12$ | 20.08 | 20.04 |
| 18 | $2 \mathrm{I} \cdot 65$ | 2 I． 59 | 21.53 | 21.47 | 21.41 |
| 19 | $23 \cdot 18$ | $23 \cdot 11$ | 23.03 | 22.96 | 22.88 |
| 20 | 24.80 | 24.70 | 24.61 | 24.51 | 24.41 |
| 21 | $26 \cdot 41$ | $26 \cdot 29$ | $26 \cdot 17$ | $26 \cdot 05$ | 25.93 |
| 22 | 28.03 | 27.89 | $27 \cdot 74$ | $27 \cdot 60$ | 27.45 |
| 23 | 29.52 | $29 \cdot 35$ | 29．18 | 29.01 | $28 \cdot 84$ |
| 24 | ＋30．99 | 30．79 | $30 \cdot 60$ | $30 \cdot 40$ | 30.21 |
| 25 | 32.47 | $32 \cdot 25$ | 32.04 | $3 \mathrm{I} \cdot 82$ | 31.61 |

$26^{\circ}-30^{\circ}$
COMMERCIAL VALUE.

| 景家 | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 33.99 | 33.74 | 33 | 33.25 | 33. |
| 27 | 35.51 | 35.25 | 34.98 | 34.72 |  |
| 28 | 37.03 | 36.74 | 36.4 | $36 \cdot 15$ |  |
| 30 | $38 \cdot 51$ 39.98 | $38 \cdot 19$ 39.63 | $37 \cdot 8$ 39.29 | 37.55 38.94 | $37 \cdot 23$ $38 \cdot 60$ |
| 31 | 4 | 41.03 | 40.66 | $40 \cdot 29$ | 39.92 |
| 32 | 42.58 | $42 \cdot 2$ | 41.81 | 41.43 | 41.04 |
| 33 | 43.80 | 43.41 | $43^{\circ} \mathrm{O}$ | 42.62 | 4 |
| 34 | 44.93 | 44.52 | $44^{12}$ | 43.71 | $43 \cdot 31$ |
| 35 | 45.95 | 45.54 | $45 \cdot 13$ | $44^{7} 7^{2}$ | 44.31 |
| 36 | 47.00 | $46 \cdot 59$ | 46.18 | 45.77 | $45 \cdot 36$ |
| 37 | $48 \cdot 13$ | 47.70 |  | $46 \cdot 85$ | $46 \cdot 43$ |
| 38 39 | 49.25 | 48.82 | $48 \cdot 38$ 49.14 |  | $47 \cdot 51$ 48.32 |
| 40 | 49.97 50.75 | 49.56 50.34 | 49.14 49.94 | $48 \cdot 73$ 49 | $48 \cdot 32$ $49 \cdot 12$ |
| 41 | 51.54 | ${ }_{51.14}$ | 50.75 | 50.35 | 49.96 |
| 42 | 52.39 | 52.00 | 51.62 | 51.23 | $50 \cdot 85$ |
| 43 | 53.20 | $52 \cdot 83$ | 52.45 | 52 | 51.70 |
| 44 | 54.06 | 53.70 | 53.35 | 52.99 | 52.63 |
| 45 | 54.96 | 54.6 | 54.25 | $53 \cdot 8$ | 53.5 |
| 46 | 55.83 56.70 |  | 55.12 |  | 54.42 |
| 48 | 56.70 | 56.36 57.20 |  | 55.67 | 55.33 56.20 |
| 49 | 58.39 | 58.06 |  | 57.41 | 57.08 |
| 50 | 59.28 | $58 \cdot 96$ | 58.65 | 58.33 | 58.01 |

$$
26^{\circ}-30^{\circ}
$$

COMMERCIAL VALUE.

| $\mid$ | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $60 \cdot 21$ | 59.89 | 59.58 | 59.26 | 58.95 |
| 52 | $61 \cdot 12$ | $60 \cdot 81$ | 60.50 | 60.19 | 59.88 |
| 53 | $62 \cdot 04$ | 61.73 | $6 \mathrm{I} \cdot 4^{2}$ | 6I•II | $60 \cdot 80$ |
| 54 | 62.91 | $62 \cdot 61$ | $62 \cdot 32$ | 62.02 | 61.72 |
| 55 | $63 \cdot 78$ | 63.49 | $63 \cdot 20$ | 62.91 | $62 \cdot 62$ |
| 56 | 64.71 | 64.41 | $64 \cdot 12$ | $63 \cdot 82$ | 63.53 |
| 57 | $65 \cdot 62$ | $65 \cdot 33$ | 65.05 | 64.76 | 64.47 |
| 58 | $66 \cdot 55$ | $66 \cdot 27$ | $66 \cdot 00$ | $65 \cdot 72$ | $65 \cdot 44$ |
| 59 | $67 \cdot 51$ | $67 \cdot 23$ | $66 \cdot 95$ | $66 \cdot 67$ | $66 \cdot 39$ |
| 60 | $68 \cdot 44$ | $68 \cdot 16$ | $67 \cdot 89$ | $67 \cdot 61$ | $67 \cdot 34$ |
| 61 | $69 \cdot 38$ | $69 \cdot 11$ | $68 \cdot 84$ | 68.57 | $68 \cdot 30$ |
| 62 | $70 \cdot 35$ | $70 \cdot 08$ | $69 \cdot 82$ | 69.55 | $69 \cdot 28$ |
| 63 | $71 \cdot 29$ | 71.02 | 70.56 | $70 \cdot 49$ | $70 \cdot 22$ |
| 64 | $72 \cdot 26$ | 71.99 | $71 \times 73$ | 71.46 | 71.19 |
| 65 | $73 \cdot 24$ | $72 \cdot 98$ | $72 \cdot 71$ | $72 \cdot 45$ | $72 \cdot 18$ |
| 66 | $74 \cdot 23$ | 73.97 | 73.70 | 73.44 | $73 \cdot 18$ |
| 67 | $75 \cdot 24$ | 74.98 | 74.71 | 74.45 | $74 \cdot 19$ |
| 68 | $76 \cdot 15$ | $75 \cdot 89$ | $75 \cdot 64$ | $75 \cdot 38$ | $75 \cdot 12$ |
| 69 | $77 \cdot 07$ | $76 \cdot 81$ | $76 \cdot 56$ | $76 \cdot 30$ | 76.05 |
| 70 | $78 \cdot 00$ | $77 \cdot 75$ | $77 \cdot 49$ | $77 \cdot 24$ | $76 \cdot 98$ |
| 71 | 78.96 | $78 \cdot 71$ | $78 \cdot 45$ | $78 \cdot 20$ | 77.95 |
| 72 | 79.93 | $79 \cdot 67$ | $79 \cdot 42$ | $79 \cdot 16$ | $78 \cdot 91$ |
| 73 | 80.88 | 80.63 | $80 \cdot 38$ | 80.13 | $79 \cdot 88$ |
| 74 | 81.84 | 81.59 8 | $8 \mathrm{I} \cdot 34$ | 81.09 | $80 \cdot 84$ |
| 75 | $82 \cdot 79$ | 82.55 | $82 \cdot 3$ I | 82.07 | $8 \mathrm{I} \cdot 83$ |

COMMERCIAL VALUE.

| \% | $26^{\circ}$ | $27^{\circ}$ | $28^{\circ}$ | $29^{\circ}$ | $30^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 83.77 | 83.53 | $83 \cdot 28$ | $83 \cdot 04$ | $82 \cdot 79$ |
| 77 | 84.75 | 84.51 | $84 \cdot 26$ | 84.02 | $83 \cdot 78$ |
| 78 | 85.73 | 85.49 | $85 \cdot 24$ | 85.00 | 84.76 |
| 79 | $86 \cdot 69$ | $86 \cdot 45$ | $86 \cdot 20$ | $85 \cdot 96$ | $85 \cdot 72$ |
| 80 | $87 \cdot 64$ | $87 \cdot 4 \mathrm{I}$ | $87 \cdot 17$ | $86 \cdot 94$ | 86.70 |
| 81 | $88 \cdot 64$ | $88 \cdot 39$ | $88 \cdot 15$ | 87.90 | 87.66 |
| 82 | 89.60 | $89 \cdot 36$ | $89 \cdot 12$ | 88.88 | $88 \cdot 64$ |
| 83 | 90.59 | 90.35 | 90.11 | 89.87 | 89.63 |
| 84 | 91.53 | 91.29 | 91.06 | $90 \cdot 82$ | 90.58 |
| 85 | $92 \cdot 45$ | $92 \cdot 22$ | 91•98 | 91.75 | 91.52 |
| 86 | 93.39 | 93.16 | 92.93 | $92 \cdot 70$ | 92.47 |
| 87 | 94.31 | 94.08 | $93 \cdot 86$ | 93.63 | 93.40 |
| 88 | $95 \cdot 22$ | 95.00 | 94.77 | 94.55 | 94.32 |
| 89 | $96 \cdot 16$ | 95.94 | $95^{\circ} 71$ | 95.49 | 95.26 |
| 90 | 97.07 | 96.84 | $96 \cdot 62$ | $96 \cdot 39$ | 96.17 |
| 91 | 97.92 | 97*70 | $97 \cdot 48$ | $97 \cdot 26$ | 97.04 |
| 92 | $98 \cdot 85$ | $98 \cdot 64$ | $98 \cdot 42$ | 98-21 | 97.99 |
| 93 | 99*77 | 99.55 | 99*34 | 99.12 | 98.91 |
| 94 | $100 \cdot 62$ | 100.41 | 100.21 | $100 \cdot 00$ | 99•79 |
| 95 | 101.46 | IOI 26 | 101.05 | $100 \cdot 85$ | 100.65 |
| 96 | $102 \cdot 26$ | 102.05 | IOI. 85 | IOI.64 | 101.44 |
| 97 | 103.05 | 102.86 | 102.67 | 102.48 | 102.29 |
| 98 | 103.94 | 103.75 | 103.57 | 103.38 | 103.19 |
| 99 | 104.63 | 10450 | 104.36 | 104.23 | 104.09 |
| 100 | $105 \cdot 72$ | 105.54 | $105 \cdot 36$ | 105.18 | 105:00 |

$31^{\circ}-35^{\circ}$
COMMERCIAL VALUE.

|  | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $1 \cdot 44$ | 151 | 1.59 | I. 66 | $1 \times 73$ |
| 2 | $2 \cdot 38$ | 2.42 | 2.47 | $2 \cdot 51$ | $2 \cdot 55$ |
| 3 | $3 \cdot 39$ | 3.42 | $3 \cdot 46$ | $3 \cdot 49$ | 3.53 |
| 4 | 4.41 | 4.44 | 4.46 | $4 \cdot 49$ | 4.52 |
| 5 | $5 \cdot 42$ | $5 \cdot 45$ | $5 \cdot 48$ | $5 \cdot 51$ | $5 \cdot 54$ |
| 6 | 6.53 | $6 \cdot 56$ | $6 \cdot 59$ | $6 \cdot 62$ | $6 \cdot 65$ |
| 7 | $7 \cdot 66$ | $7 \cdot 68$ | $7 \cdot 71$ | 773 | $7 \cdot 76$ |
| 8 | $8 \cdot 76$ | $8 \cdot 78$ | 8.81 | 8.83 | $8 \cdot 85$ |
| 9 | $9 \cdot 88$ | $9 \cdot 89$ | 9.91 | $9 \cdot 92$ | 9.94 |
| 10 | 10.97 | 10.98 | I 1.00 | II.OI | 11.02 |
| 11 | 12.26 | 12.27 | 12.27 | 12.28 | 12.28 |
| 12 | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| 13 | 14.71 | 14.70 | 14.69 | 14.68 | 14.67 |
| 14 | 15.92 | 15.90 | 15.87 | 15.85 | 15.83 |
| 15 | 17.24 | 17.21 | I7.18 | 17.15 | $17 \cdot 12$ |
| 16 | 18.63 | 18.58 | 18.54 | 18.49 | 18.45 |
| 17 | 19.98 | 19.92 | 19.86 | 19.80 | 19.74 |
| 18 | 21.33 | $2 \mathrm{I} \cdot 26$ | $2 \mathrm{I} \cdot \mathrm{I} 8$ | $2 \mathrm{I} \cdot \mathrm{II}$ | 21.03 |
| 19 | 22.79 | 22.69 | 22.60 | 22.50 | 22.41 |
| 20 | 24.29 | $24^{1} 17$ | 24.05 | 23.93 | 23.81 |
| 21 | 25.79 | $25 \cdot 66$ | 25.52 | 25.39 | 25.25 |
| 22 | 27.29 | $27 \cdot 13$ | $26 \cdot 98$ | 26.82 | 26.66 |
| 23 | 28.66 | 28.48 | 28.30 | 28-12 | 27.94 |
| 24 | 30.02 | $29 \cdot 82$ | 29.63 | 29.43 | 29.24 |
| 25 | 31-39 | 31.17 | 30.96 | $30 \cdot 74$ | $30 \cdot 52$ |

$31^{\circ}-35^{\circ}$
COMMERCIAL VALUE.

| $\mid$ | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 32.77 | 32.53 | $32 \cdot 30$ | 32.06 | 31.82 |
| 27 | 34.20 | 33.93 | 33.67 | 33.40 | $33 \cdot 14$ |
| 28 | $35 \cdot 58$ | $35 \cdot 30$ | $35 \cdot 03$ | 34.75 | 34.47 |
| 29 | $36 \cdot 93$ | $36 \cdot 62$ | $36: 32$ | $36 \cdot 01$ | $35^{\circ} 71$ |
| 30 | $38 \cdot 27$ | 37.94 | 37.61 | $37 \cdot 28$ | $36 \cdot 95$ |
| 31 | 39.57 | $39 \cdot 23$ | $38 \cdot 88$ | $38 \cdot 54$ | 38.19 |
| 32 | $40 \cdot 69$ | $40 \cdot 34$ | $40 \cdot 00$ | 39.65 | 39.30 |
| 33 | 41.85 | 41.49 | $41 \cdot 12$ | $40 \cdot 76$ | $40 \cdot 39$ |
| 34 | 42.93 | $42 \cdot 55$ | $42 \cdot 17$ | 41•79 | 41.41 |
| 35 | 43.93 | 43.56 | $43 \cdot 18$ | $42 \cdot 8 \mathrm{I}$ | 42.43 |
| 36 | 44.98 | 44.60 | $44^{2} 23$ | $43 \cdot 85$ | 43.47 |
| 37 | $46 \cdot 04$ | $45 \cdot 65$ | $45 \cdot 25$ | 44.86 | 44.47 |
| 38 | $47 \cdot 13$ | $46 \cdot 74$ | $46 \cdot 36$ | 45.97 | $45 \cdot 59$ |
| 39 | $47 \cdot 93$ | 47.55 | $47 \cdot 16$ | $46 \cdot 78$ | $46 \cdot 39$ |
| 40 | $48 \cdot 75$ | $48 \cdot 38$ | $48 \cdot 01$ | $47 \cdot 64$ | $47 \cdot 27$ |
| 41 | $49 \cdot 6$ | $49 \cdot 24$ | $48 \cdot 89$ | $48 \cdot 53$ | $48 \cdot 17$ |
| 42 | 50.50 | 50.15 | $49 \cdot 79$ | 49.44 | 49.09 |
| 43 | 51.36 | 51.02 | 50.68 | $50 \cdot 34$ | 50.00 |
| 44 | 52.29 | 51.95 | $5 \mathrm{I} \cdot 60$ | 51.26 | 50.92 |
| 45 | 53.19 | $52 \cdot 85$ | 52.5 I | 52.17 | $5 \mathrm{I} \cdot 83$ |
| 46 | 54.09 | 53.76 | 53.42 | 53.09 | 52.76 |
| 47 | $55^{\circ} \mathrm{OI}$ | 54.69 | 54.37 | 54.05 | 53.73 |
| 48 | 55.89 | 55.58 | $55 \cdot 26$ | 54.95 | 54.64 |
| 49 | $56 \cdot 78$ | $56 \cdot 47$ | $56 \cdot 17$ | 55.86 | 55.56 |
| 50 | 57.71 | 57.41 | $57 \cdot 10$ | $56 \cdot 80$ | 56.50 |

$$
31^{\circ}-35^{\circ}
$$

COMMERCIAL VALUE.

|  | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $58 \cdot 65$ | $58 \cdot 35$ | 58.04 | 57.74 | 57.44 |
| 52 | 59.58 | 59.28 | 58:98 | 58.68 | 58.38 |
| 53 | 60.51 | 60.22 | 59.94 | 59.65 | 59.36 |
| 54 | 61.43 | $61 \cdot 14$ | $60 \cdot 86$ | 60.57 | $60 \cdot 28$ |
| 55 | $62 \cdot 34$ | 62.05 | 61.77 | 61.48 | 6I.20 |
| 56 | $63 \cdot 25$ | $62 \cdot 97$ | $62 \cdot 69$ | 62.41 | $62 \cdot 13$ |
| 57 | 64.20 | 63.93 | 63.66 | $63 \cdot 39$ | $63 \cdot 12$ |
| 58 | $65 \cdot 17$ | 64.90 | 64.63 | $64 \cdot 36$ | 64.09 |
| 59 | $66 \cdot 12$ | $65 \cdot 85$ | 65.58 | $65 \cdot 31$ | 65.04 |
| 60 | 67.07 | $66 \cdot 80$ | $66 \cdot 53$ | $66 \cdot 26$ | $65 \cdot 99$ |
| 61 | $68 \cdot 03$ | $67 \cdot 77$ | $67 \cdot 50$ | $67 \cdot 24$ | $66 \cdot 97$ |
| 62 | 69.02 | $68 \cdot 75$ | $68 \cdot 49$ | $68 \cdot 22$ | $67 \cdot 96$ |
| 63 | 69.96 | $69 \cdot 70$ | 69.45 | $69 \cdot 19$ | $68 \cdot 93$ |
| 64 | $70 \cdot 94$ | $70 \cdot 68$ | 70.43 | $70 \cdot 17$ | 69.92 |
| 65 | 71.93 | 71.67 | $71 \cdot 42$ | 71.16 | 70.91 |
| 66 | 72.93 | 72.67 | 72.42 | $72 \cdot 16$ | 71.91 |
| 67 | 73.93 | $73 \cdot 68$ | $73 \cdot 42$ | $73 \cdot 17$ | 72.91 |
| 68 | 74.86 | $74 \cdot 61$ | 74.35 | $74 \cdot 10$ | $73 \cdot 84$ |
| 69 | $75 \cdot 80$ | 75.54 | $75 \cdot 29$ | $75 \cdot 03$ | 74.78 |
| 70 | $76 \cdot 73$ | $76 \cdot 48$ | $76 \cdot 23$ | 75:98 | 75.73 |
| 71 | $77 \cdot 70$ | $77 \cdot 45$ | $77 \cdot 21$ | 76.96 | $76 \cdot 71$ |
| 72 | $78 \cdot 66$ | 78.42 | $78 \cdot 17$ | 77.93 | 77.68 |
| 73 | $79 \cdot 64$ | $79 \cdot 39$ | $79 \cdot 15$ | $78 \cdot 90$ | $78 \cdot 66$ |
| 74 | $80 \cdot 60$ | $80 \cdot 36$ | $80 \cdot 12$ | 79.88 | 79.64 |
| 75 | 81.59 | 8I.35 | 81.10 | $80 \cdot 86$ | 80.62 |

COMMERCIAL VALUE.

|  | $31^{\circ}$ | $32^{\circ}$ | $33^{\circ}$ | $34^{\circ}$ | $35^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 82.55 | $82 \cdot 31$ | 82.08 | $8 \mathrm{I} \cdot 84$ | 81.60 |
| 77 | 83.54 | $83 \cdot 30$ | 83.06 | $82 \cdot 82$ | 82.58 |
| 78 | 84.52 | $84 \cdot 28$ | 84.04 | $83 \cdot 80$ | 83.56 |
| 79 | $85 \cdot 48$ | $85 \cdot 25$ | $85^{\circ} \mathrm{O}$ | 84.78 | 84.54 |
| 80 | $86 \cdot 46$ | $86 \cdot 23$ | 85.99 | $85 \cdot 76$ | 85.52 |
| 81 |  | $87 \cdot 20$ | $86 \cdot 96$ | $86 \cdot 73$ | $86 \cdot 50$ |
| 82 | $88 \cdot 40$ | $88 \cdot 16$ | $87 \cdot 93$ | 87.69 | $87 \cdot 45$ |
| 83 | $89 \cdot 39$ | $89 \cdot 16$ | $88 \cdot 92$ | 88.69 | 88.45 |
| 84 | 90.35 | 90.11 | 89.88 | $89 \cdot 64$ | 89.41 |
| 85 | 91.29 | 91.06 | $90 \cdot 82$ | $90 \cdot 59$ | $90 \cdot 36$ |
| 86 | 92.24 | $92 \cdot 02$ | 91•79 | 91.57 | 91.34 |
| 87 | 93.17 | 92.95 | $92 \cdot 72$ | $92 \cdot 50$ | $92 \cdot 27$ |
| 88 | $94 \cdot 10$ | 93.87 | $93 \cdot 65$ | $93 \cdot 42$ | 93.20 |
| 89 | $95 \cdot 04$ | 94.82 | 94.60 | 94.38 | 94.16 |
| 90 | 95.95 | $95 \cdot 73$ | 95.51 | $95 \cdot 29$ | 95.07 |
| 91 | $96 \cdot 83$ | $96 \cdot 62$ | $96 \cdot 42$ | 96.21 | 96.00 |
| 92 | 97.78 | 97.57 | $97 \cdot 36$ | 97.15 | 96.94 |
| 93 | 98.71 | 98-50 | $98 \cdot 30$ | 98.09 | 97.89 |
| 94 | 99.59 | 99.39 | 99.18 | 98.98 |  |
| 95 | $100 \cdot 45$ | $100 \cdot 25$ | 100.05 | $99 \cdot 85$ | 99.65 |
| 96 | IOI•24 | 101.05 | $100 \cdot 85$ | $100 \cdot 66$ | $100 \cdot 46$ |
| 97 | 102.11 | 101.93 | $101 \cdot 74$ | 101.56 | IOI•38 |
| 98 | 103.01 | 102.83 | 102.65 | 102.47 | $102 \cdot 29$ |
| 99 | 103.92 | 103.75 | 103.57 | 103.40 | 103.23 |
| 100 | 104.83 | 104.66 | 104.48 | 10431 | 104.14 |

$36^{\circ}-40^{\circ}$
COMMERCIAL VALUE.

\begin{tabular}{|c|c|c|c|c|c|}
\hline  \& \(36^{\circ}\) \& \(37^{\circ}\) \& \(38^{\circ}\) \& \(39^{\circ}\) \& \(40^{\circ}\) \\
\hline 1 \& \begin{tabular}{l}
1.75 \\
\hline 2.56
\end{tabular} \& 1.78
2
2 \& 1.80
2.50 \& I. 83
2.61

r \& 1.85
2.62 <br>

\hline | 2 |
| :--- |
| 3 | \& 2.56

3.54 \& 2.58
3.55 \& 2.59
3.57 \& 2.61
3.58 \& 2.62
3.59 <br>
\hline 4 \& 4.53 \& 4 4.55 \& 4.56 \& $4 \cdot 58$ \& 4.59 <br>
\hline 5 \& 5.55 \& $5 \cdot 56$ \& $5 \cdot 57$ \& 5.58 \& 5.59 <br>
\hline 6 \& 6.66 \& $6 \cdot 67$ \& $6 \cdot 67$ \& $6 \cdot 68$ \& 6.69 <br>
\hline 7 \& 7.76
8.85 \& 7.76
8.85 \& \& 7.7
8.85 \& <br>
\hline 8
9 \& 8.85

9.94 \& | 8.85 |
| :--- |
| 9.94 | \& 8.85

9.93 \& 8.85
9.93 \& 8.85
9.93 <br>
\hline 10 \& 11.02 \& 11.02 \& 11.01 \& 11.01 \& 11.01 <br>
\hline 11 \& 12.27 \& 12.26 \& 12.26 \& 12.25 \& 12.24 <br>
\hline 12 \& 13.48 \& 13.45 \& 13.43 \& 13.40 \& 13.38 <br>
\hline 13 \& 14.64 \& 14.61 \& 14.58 \& 14.55 \& 14.52 <br>
\hline 14 \& 15.79 \& 15.76 \& 15.72 \& 15.69 \& 15.65 <br>
\hline 15 \& 17.07 \& 17.02 \& 16.98 \& 16.93 \& 16.88 <br>
\hline 16 \& 18.39 \& 18.33 \& 18.26 \& 18.20 \& $18 \cdot 14$ <br>
\hline 17 \& 19.66 \& 19.59 \& 19.51 \& 19.44 \& <br>
\hline 18 \& 20.94 \& 20.84 \& 20.75 \& 20.65 \& $\begin{array}{r}20 \cdot 56 \\ 21.85 \\ \hline\end{array}$ <br>
\hline 19 \& 22.30
23.68 \& $22 \cdot 19$ \& 22.07 \& 21.96 \& 21.85
23.18 <br>
\hline 20 \& ${ }^{2} 3.68$ \& 23.56 \& 23.43 \& 23.31 \& $23 \cdot 18$ <br>
\hline 21 \& 25.10
26.49 \& 24.95
26.32 \& $24 \cdot 79$
$26 \cdot 14$ \& 24.64
25.97 \& 24.49
25.80 <br>
\hline 23 \& 27.75 \& 27.56 \& 27.37 \& 27.18 \& 26.99 <br>
\hline 24 \& 29.03 \& 28.82 \& 28.61 \& 28.40 \& 28-19 <br>
\hline 25 \& $30 \cdot 30$ \& $30 \cdot 07$ \& 29.85 \& 29.62 \& 29.40 <br>
\hline
\end{tabular}

$36^{\circ}-40^{\circ}$
COMMERCIAL VALUE.

| 密家: | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 3 I 58 | 31.34 | 31.09 | 30.85 | $30 \cdot 61$ |
| 27 | $32 \cdot 88$ | 32.62 | $32 \cdot 37$ | $32 \cdot 11$ | $3 \mathrm{I} \cdot 85$ |
| 28 | 34.19 | 33.91 | 33.63 | 33.35 | 33.07 |
| 29 | 35.41 | 35•II | 34.82 | 34.52 | 34.22 |
| 30 | $36 \cdot 64$ | $36 \cdot 33$ | 36.02 | $35^{\circ} 7 \mathrm{I}$ | 35.40 |
| 31 | 37.86 | 37.53 | 37.21 | 36.88 | 36.55 |
| 32 | 38.96 | $38 \cdot 62$ | $38 \cdot 29$ | 37.95 | 37.61 |
| 33 | $40 \cdot 04$ | 39.70 | 39.35 | $39^{\circ} \mathrm{I}$ | $38 \cdot 66$ |
| 34 | 41.07 | $40 \cdot 73$ | $40 \cdot 38$ | $40 \cdot 04$ | 39.70 |
| 35 | $42 \cdot 08$ | 41•73 | 41.39 | 41.04 | $40 \cdot 69$ |
| 36 | $43 \cdot 12$ | $42 \cdot 76$ | 42.41 | 42.05 | 4170 |
| 37 | $44 \cdot 12$ | 43.78 | $43 \cdot 43$ | 43.09 | $42 \cdot 74$ |
| 38 | $45 \cdot 23$ | 44.87 | 44.50 | 44.14 | $43 \cdot 78$ |
| 39 | 46.05 | 45.70 | $45 \cdot 36$ | $45^{\circ} \mathrm{O}$ | 44.67 |
| 40 | $46 \cdot 93$ | $46 \cdot 60$ | $46 \cdot 26$ | $45 \cdot 93$ | 45.59 |
| 41 | $47 \cdot 84$ | 47.51 | $47 \cdot 18$ | $46 \cdot 85$ | $46 \cdot 52$ |
| 42 | $48 \cdot 77$ | $48 \cdot 44$ | $48 \cdot 12$ | $47 \cdot 79$ | $47 \cdot 47$ |
| 43 | $49 \cdot 68$ | $49 \cdot 36$ | $49 \cdot 03$ | $48 \cdot 71$ | $48 \cdot 39$ |
| 44 | $50 \cdot 60$ | $50 \cdot 28$ | 49.97 | $49 \cdot 6$ | $49 \cdot 33$ |
| 45 | 51.52 | $5 \mathrm{I} \cdot 2 \mathrm{I}$ | 50.91 | $50 \cdot 60$ | 50:29 |
| 46 | 52.46 | 52.16 | $5 \mathrm{I} \cdot 86$ | 51.56 | $51 \cdot 26$ |
| 47 | 53.43 | $53 \cdot 13$ | $52 \cdot 84$ | 52.54 | 52.24 |
| 48 | 54.35 | 54.05 | 53.76 | 53.46 | $53 \cdot 17$ |
| 49 | 55.27 | 54.98 | $54 \cdot 68$ | 54.39 | 54.10 |
| 50 | $56 \cdot 2 \mathrm{I}$ | $55 \cdot 92$ | $55 \cdot 64$ | $55 \cdot 35$ | 55.06 |

$36^{\circ}-40^{\circ}$
COMMERCIAL VALUE．

| 家宫号 | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 57－16 | 56.87 | 56.59 | 56．30 | 56.02 |
| 52 | $58 \cdot 10$ | $57 \cdot 82$ | 57.55 | $57 \cdot 27$ | 56.99 |
| 53 | 59.08 | $58 \cdot 80$ | $58 \cdot 52$ | $58 \cdot 24$ | 57.96 |
| 54 | 60.01 | 59.73 | 59.46 | 59．18 | 58.91 |
| 55 | 60.93 | 60.66 | 60．38 | $60 \cdot 11$ | 59.84 |
| 56 | $6 \mathrm{I} \cdot 87$ | $6 \mathrm{I} \cdot 6 \mathrm{I}$ | 61．35 | 61．09 | 60.83 |
| 57 | 62.86 | 62.59 | $62 \cdot 33$ | 62.06 | $6 \mathrm{I} \cdot 80$ |
| 58 | $63 \cdot 83$ | 63.57 | 63.30 | 63.04 | $62 \cdot 78$ |
| 59 | 64.78 | 64.53 | $64 \cdot 27$ | 64.02 | 63.76 |
| 60 | $65 \cdot 74$ | 65.48 | $65 \cdot 23$ | 64.97 | $64 \cdot 72$ |
| 61 | $66 \cdot 71$ | $66 \cdot 46$ | $66 \cdot 20$ | 65.95 | $65 \cdot 69$ |
| 62 | $67 \cdot 70$ | $67 \cdot 45$ | 67．19 | $66 \cdot 94$ | $66 \cdot 68$ |
| 63 | 68.68 | $68 \cdot 43$ | 68．17 | $67{ }^{\circ} 9^{2}$ | $67 \cdot 67$ |
| 64 | $69 \cdot 67$ | $69 \cdot 42$ | $69 \cdot 17$ | $68 \cdot 9^{2}$ | $68 \cdot 67$ |
| 65 | $70 \cdot 66$ | 70.41 | 70．17 | 69.92 | 69.67 |
| 66 | 71.66 | 71．41 | 71•16 | 70．91 | 70.66 |
| 67 | 72.66 | 72.41 | 72．16 | 71.91 | 71．66 |
| 68 | 73.59 | $73 \cdot 35$ | $73 \cdot 10$ | 72.86 | $72 \cdot 61$ |
| 69 | 74.54 | 74.29 | 74.05 | 73.80 | 73.56 |
| 70 | $75 \cdot 49$ | $75 \cdot 25$ | 75.01 | 74.77 | 74.53 |
| 71 | $76 \cdot 47$ | 76.23 | 75.99 | $75 \cdot 75$ | 75.51 |
| 72 | 77.44 | $77 \cdot 20$ | $76 \cdot 96$ | $76 \cdot 72$ | $76 \cdot 48$ |
| 73 | $78 \cdot 42$ | 78－19 | 77.95 | $77 \cdot 72$ | 77.48 |
| 74 | 79.41 | $79 \cdot 17$ | $78 \cdot 94$ | $78 \cdot 70$ | 78.47 |
| 75 | 80．39 | $80 \cdot 15$ | 79.92 | 79.68 | $79 \cdot 45$ |

$36^{\circ}-40^{\circ}$
COMMERCIAL VALUE.

| $\mid$ | $36^{\circ}$ | $37^{\circ}$ | $38^{\circ}$ | $39^{\circ}$ | $40^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 81.37 | 8I•I3 | 80.90 | 80.66 | 80.43 |
| 77 | $82 \cdot 35$ | $82 \cdot 12$ | 81.88 | 81.65 | 81.42 |
| 78 | $83 \cdot 33$ | $83 \cdot 10$ | 82.86 | 82.63 | 82.40 |
| 79 | 84.31 | 84.08 | $83 \cdot 84$ | $83 \cdot 61$ | $83 \cdot 38$ |
| 80 | $85 \cdot 29$ | 85.06 | 84.83 | 84.60 | 84.37 |
| 81 | $86 \cdot 27$ | $86 \cdot 04$ | $85 \cdot 81$ | $85 \cdot 58$ | $85 \cdot 35$ |
| 82 | 87.22 | 87.00 | $86 \cdot 77$ | 86.55 | $86 \cdot 32$ |
| 83 | $88 \cdot 22$ | 87.99 | 87.77 | 87.54 | 87.31 |
| 84 | 89.19 | $88 \cdot 96$ | $88 \cdot 74$ | $88 \cdot 51$ | $88 \cdot 29$ |
| 85 | 90.14 | 89.92 | 89.69 | 89.47 | $89 \cdot 25$ |
| 86 | 91.12 | 90.90 | $90 \cdot 67$ | $90 \cdot 45$ | 90.23 |
| 87 | 92.05 | $91 \cdot 83$ | 9I•6I | 91.39 | 91.17 |
| 88 | 92.98 | $92 \cdot 76$ | 92.55 | 92.33 | 92.11 |
| 89 | $93 \cdot 94$ | $93 \cdot{ }^{2}$ | $93 \cdot 50$ | $93 \cdot 28$ | $93 \cdot 06$ |
| 90 | 94.86 | $94 \cdot 65$ | 94.43 | $94 \cdot 22$ | 94.01 |
| 91 | 95.79 | 95.58 | $95 \cdot 37$ | 95•16 | 94*95 |
| 92 | 96.73 | $96 \cdot{ }^{2}$ | 96.31 | $96 \cdot 10$ | 95.89 |
| 93 | $97 \cdot 69$ | $97 \cdot 49$ | 97.29 | 97.09 | 96.89 |
| 94 | $98 \cdot 59$ | $98 \cdot 39$ | $98 \cdot 20$ | 98.01 | $97 \cdot 81$ |
| 95 | 99.46 | 99.26 | 99.07 | $98 \cdot 87$ | $98 \cdot 68$ |
| 96 | 100.28 | 100.10 | 99*93 | 9975 | 99.57 |
| 97 | IOI 20 | IOI 02 | $100 \cdot 83$ | $100 \cdot 65$ | 100.47 |
| 98 | $102 \cdot 11$ | 101.94 | 10179 | 101.59 | 101.41 |
| 99 | 103.05 | $102 \cdot 88$ | 102.70 | 102.53 | $102 \cdot 35$ |
| 100 | 103.97 | 103.80 | 103.63 | 103.46 | 103.29 |

$41^{\circ}-45^{\circ}$
COMMERCIAL VALUE.

|  | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I. 85 | I. 85 | I. 85 | I. 85 | I.85 |
| 2 | $2 \cdot 62$ | $2 \cdot 62$ | 2.62 | $2 \cdot 62$ | $2 \cdot 62$ |
| 3 | 3.59 | 3.59 | $3 \cdot 58$ | 3.58 | 3.58 |
| 4 | 4.58 | 4.58 | 4.57 | 4.57 | $4 \cdot 56$ |
| 5 | $5 \cdot 58$ | $5 \cdot 58$ | $5 \cdot 57$ | 5.57 | $5 \cdot 56$ |
| 6 | $6 \cdot 68$ | $6 \cdot 67$ | $6 \cdot 67$ | $6 \cdot 66$ | $6 \cdot 65$ |
| 7 | $7 \cdot 76$ | $7 \cdot 75$ | $7 \cdot 75$ | $7 \cdot 74$ | $7 \cdot 73$ |
| 8 | 8.83 | $8 \cdot 82$ | $8 \cdot 80$ | $8 \cdot 79$ | $8 \cdot 77$ |
| 9 | 9.91 | 9.88 | 9.86 | 9.83 | 9.81 |
| 10 | 10.98 | 10.95 | 10.92 | 10.89 | 10.86 |
| 11 | 12.20 | $12 \cdot 17$ | 12.13 | 12.10 | 12.06 |
| 12 | 13.34 | 13.29 | 13.25 | 13.20 | $13 \cdot 16$ |
| 13 | 14.47 | 14.42 | 14.36 | 14.31 | 14.26 |
| 14 | 15.59 | 15.53 | 15.48 | 15.42 | 15.36 |
| 15 | 16.81 | 16.73 | 16.66 | 16.58 | 16.51 |
| 16 | 18.05 | 17.96 | 17.88 | 1779 | 17.70 |
| 17 | 19.26 | $19 \cdot 16$ | 19.06 | $18 \cdot 96$ | 18.86 |
| 18 | 20.45 | $20 \cdot 34$ | 20.22 | $20 \cdot 11$ | 20.00 |
| 19 | 21.72 | 2 I. 60 | 21.47 | 21.35 | 21.22 |
| 20 | 23.03 | 22.89 | 22.74 | 22.60 | 2.2 .45 |
| 21 | 24.32 | 24.15 | 23.99 | 23.82 | 23.65 |
| 22 | 25.61 | 25.43 | 25.24 | 25.06 | 24.87 |
| 23 | 26.80 | $26 \cdot 60$ | 26.41 | $26 \cdot 21$ | 26.02 |
| 24 | 27.98 | $27 \cdot 77$ | 27.57 | $27 \cdot 36$ | $27 \cdot 15$ |
| 25 | 29.17 | 28.95 | 28.72 | 28.50 | 28.27 |

COMMERCIAL VALUE.

| 顑品 | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 30 | 30 |  |  |  |
| 27 | 31.59 | 31.33 | 31.08 | $30 \cdot 82$ | 30.56 |
| 28 | 32.80 | 32.53 | 32.25 | 31.98 | 31.71 |
| 29 | 33.94 | 33.66 | 33.37 | 33.09 |  |
| 30 | $35 \cdot 10$ | $34 \cdot 81$ | 34.51 | 34.22 | 33.92 |
| 31 | $36 \cdot 24$ | 35. |  | 35.32 |  |
| 32 | 37.29 | 36.98 | 36.66 | 36.35 |  |
| 33 |  | 38.02 | 37.71 | 37.39 |  |
| 34 | 39.3 | 39.05 | 38.73 | 38 |  |
| 35 | $40 \cdot 37$ | $40 \cdot$ | $39^{\cdot 72}$ | 39.40 |  |
| 36 | $41 \cdot 38$ | 4 | $40 \cdot 7$ | $40 \cdot 42$ |  |
| 37 | $42 \cdot 4$ | 42.08 | $41 \cdot 76$ | 41. |  |
| 38 | 43.46 | 43 | $42 \cdot 81$ | 42 | $42 \cdot 16$ |
| 39 | $44 \cdot 3$ | 44 | 43.71 | $43 \cdot 39$ |  |
| 40 | 45 | 44 | $44 \cdot 67$ | 4 |  |
| 41 | 46 | 45.91 | 45.60 | 45:30 |  |
| 42 | 47 | $46 \cdot 87$ | $46 \cdot 56$ | 46.26 |  |
| 43 | $48 \cdot 09$ | $47 \cdot 79$ | 47.50 |  |  |
| 44 | $49 \cdot 0$ | 48.75 | $48 \cdot 45$ | $48 \cdot 16$ |  |
| 45 | 50.00 | 49.71 | 49.43 | $49 \cdot 14$ | 48.85 |
| 46 | 50.98 | 50.69 | 50.41 | 50 |  |
| 47 | 51.96 | 51.67 | 5139 | $51 \cdot 10$ | 2 |
| 48 | 52.89 | 52.61 | 52.33 | 52.05 | 77 |
| 49 | 53.82 | 53.55 | 53.27 | 53.00 | $52 \cdot 72$ |
| 50 | $54 \cdot 78$ | 54.51 | 54.23 | 53.96 | 53.68 |

$$
41^{\circ}-45^{\circ}
$$

COMMERCIAL VALUE.

|  | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $55 \cdot 75$ | 55.49 | 55.22 | 54.96 | 54.69 |
| 52 | $56 \cdot 72$ | $56 \cdot 46$ | 56.19 | 55.93 | $55 \cdot 66$ |
| 53 | 57.69 | 57.42 | $57 \cdot 16$ | 56.89 | $56 \cdot 62$ |
| 54 | $58 \cdot 64$ | $58 \cdot 38$ | $58 \cdot 11$ | 57.85 | 57.58 |
| 55 | 59.59 | 59.33 | 59.08 | 58.82 | $58 \cdot 57$ |
| 56 | 60.58 | $60 \cdot 3^{2}$ | 60.07 | $59 \cdot 8 \mathrm{I}$ | 59.56 |
| 57 | 61.55 | 6I.29 | 6I.04 | $60 \cdot 78$ | 60.53 |
| 58 | 62.53 | $62 \cdot 27$ | $62 \cdot 02$ | $61 \cdot 76$ | 61.51 |
| 59 | 63.51 | $63 \cdot 26$ | 63.00 | $62 \cdot 75$ | 62.50 |
| 60 | 64.47 | 64.22 | $63 \cdot 97$ | $63 \cdot 7^{2}$ | $63 \cdot 47$ |
| 61 | $65 \cdot 45$ | $65 \cdot 20$ | 64.96 | 64.71 | 64.47 |
| 62 | $66 \cdot 44$ | $66 \cdot 19$ | 65.95 | $65 \cdot 70$ | 65.46 |
| 63 | 67.43 | $67 \cdot 19$ | $66 \cdot 94$ | $66 \cdot 70$ | $66 \cdot 46$ |
| 64 | $68 \cdot 43$ | $68 \cdot 19$ | 67.94 | $67 \cdot 70$ | 67.46 |
| 65 | $69 \cdot 43$ | $69 \cdot 18$ | $68 \cdot 94$ | $68 \cdot 69$ | $68 \cdot 45$ |
| 66 | $70 \cdot 41$ | 70.17 | 69.92 | $69 \cdot 68$ | 69.43 |
| 67 | 71.41 | $71 \cdot 17$ | 70.92 | $70 \cdot 68$ | $70 \cdot 43$ |
| 68 | $72 \cdot 37$ | $72 \cdot 13$ | 71.88 | $71 \cdot 64$ | 71.40 |
| 69 | $73 \cdot 33$ | $73 \cdot 10$ | $72 \cdot 86$ | 72.63 | 72.40 |
| 70 | 74.30 | 74.06 | $73 \cdot 83$ | 73.59 | $73 \cdot 36$ |
| 71 | $75 \cdot 28$ | $75 \cdot 04$ | 74.81 | 74.57 | 74.34 |
| 72 | $76 \cdot 25$ | 76.01 | $75 \cdot 78$ | $75 \cdot 54$ | $75 \cdot 31$ |
| 73 | $77 \cdot 25$ | 77.02 | $76 \cdot 79$ | $76 \cdot 56$ | $76 \cdot 33$ |
| 74 | $78 \cdot 24$ | 78.01 | $77 \cdot 78$ | $77 \cdot 55$ | $77 \cdot 32$ |
| 75 | 79.22 | $78 \cdot 99$ | $78 \cdot 76$ | 78.53 | $78 \cdot 30$ |

$41^{\circ}-45^{\circ}$
COMMERCIAL VALUE.

| 훌ํํ | $41^{\circ}$ | $42^{\circ}$ | $43^{\circ}$ | $44^{\circ}$ | $45^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $80 \cdot 20$ | 79.97 | 79.75 |  | 7 |
| 77 | $8 \mathrm{r} \cdot 19$ | 80.96 | $80 \cdot 72$ | 80 | 8 |
| 78 | $82 \cdot 17$ | 81.95 | 81.72 | 81-50 | 81 |
| 79 | $83 \cdot 15$ | 82.92 | $82 \cdot 70$ | 82.47 | 82 |
| 80 | 84.14 | 83.92 | 83.69 | 83.47 | 83.2 |
| 81 | $85 \cdot 13$ | 84.90 | 84.68 | 84.45 | 84.23 |
| 82 | $86 \cdot 10$ | 8.88 | $85 \cdot 65$ | $85 \cdot 43$ | 85. |
| 83 | 87.09 | 86.87 | 86.64 | 86.42 | 86.20 |
| 84 | 88.07 | 87.85 | 87.62 | 87.40 | 87.18 88.15 |
| 85 | 89.03 |  | . 59 | $88 \cdot 37$ | 88.15 |
| 86 | 90. | 89.79 | 89.58 | 89.36 | 89.14 |
| 87 | $90 \cdot 95$ | $90 \cdot 74$ | $90 \cdot 52$ | $90 \cdot 31$ | $90 \cdot$ |
| 8 | 91.90 | 91.68 | 91-47 | 91-25 | $9 \mathrm{I}^{\circ} \mathrm{O}$ |
| 89 | 92.85 | $92 \cdot 64$ | $92 \cdot 44$ | $92 \cdot 23$ |  |
| 90 | $93 \cdot 81$ | $93 \cdot 60$ | 93.40 | $93 \cdot 19$ |  |
| 91 | 94•74 | $94 \cdot 54$ | $94 \cdot 33$ | 94*13 | 93'92 |
| 92 | 95.69 | 95.49 | 95.30 |  | 94.90 |
| ${ }_{94}^{93}$ | ${ }^{96} 769$ | 96.49 | $96 \cdot 30$ | 96•10 |  |
| 94 95 | $97 \cdot 61$ 98.48 | $97 \cdot 41$ 98.29 | $97 \cdot 21$ 98.10 | 97.01 97 |  |
| 96 | 99.38 | 99:20 | 99.01 | 98.83 | $98 \cdot 6$ |
| 97 | $100 \cdot 30$ | $100 \cdot 12$ | 990.85 | 99.77 | 99.60 |
| 98 | 101.24 | 101.06 | 100.89 | $100 \cdot 71$ | 100.54 |
| 100 | 102.18 | 102.01 | 101.84 | 101.67 | $\xrightarrow{101}$ |
| 100 | $103 \cdot 12$ | 102.96 | 10 | $102 \cdot 6$ | 102 |

$46^{\circ}-50^{\circ}$
COMMERCIAL VALUE.

| \% | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I.80 | 1.75 | 1.69 | 1.64 | I 59 |
| 2 | 2.59 | 2.56 | 2.53 | 2.50 | 2.47 |
| 3 | $3 \cdot 55$ | $3 \cdot 53$ | 3.50 | $3 \cdot 48$ | 3.45 |
| 4 | 4.54 | 4.52 | $4 \cdot 49$ | $4 \cdot 47$ | 4.45 |
| 5 | $5 \cdot 54$ | $5 \cdot 5 \mathrm{I}$ | $5 \cdot 49$ | $5 \cdot 46$ | $5 \cdot 44$ |
| 6 | $6 \cdot 62$ | $6 \cdot 59$ | $6 \cdot 56$ | $6 \cdot 53$ | $6 \cdot 50$ |
| 7 | $7 \cdot 69$ | $7 \cdot 65$ | $7 \cdot 62$ | $7 \cdot 58$ | $7 \cdot 54$ |
| 8 | $8 \cdot 73$ | $8 \cdot 70$ | $8 \cdot 66$ | $8 \cdot 63$ | $8 \cdot 59$ |
| 9 | 9•77 | 9•73 | $9 \cdot 70$ | $9 \cdot 66$ | $9 \cdot 62$ |
| 10 | 10.82 | 10.78 | 10.73 | 10.69 | 10.65 |
| 11 | 12.00 | I 1.95 | I I $\cdot 89$ | I I $\cdot 84$ | 11.78 |
| 12 | $13 \cdot 10$ | 13.03 | 12.97 | 12.90 | 12.84 |
| 13 | 14.19 | 14.12 | 14.04 | 13.97 | 13.90 |
| 14 | 15.29 | 15.22 | $15 \cdot 14$ | 15.07 | 15.00 |
| 15 | 16.43 | $16 \cdot 35$ | 16.28 | 16.20 | $16 \cdot 12$ |
| 16 | 17.60 | 17.50 | 17.39 | 17.29 | $17 \cdot 19$ |
| 17 | $18 \cdot 75$ | $18 \cdot 64$ | 18.52 | $18 \cdot 41$ | 18.30 |
| 18 | 19.88 | 19.76 | 19.63 | 19.51 | 19.39 |
| 19 | $2 \mathrm{I} \cdot 08$ | 20.94 | $20 \cdot 79$ | 20.65 | 20.51 |
| 20 | 22.29 | $22 \cdot 13$ | 2 I 97 | 21.81 | 21.65 |
| 21 | 23.48 | 23.31 | $23 \cdot 14$ | 22.97 | 22.80 |
| 22 | 24.68 | 24.49 | 24.30 | $24 \cdot 11$ | 23.92 |
| 23 | 25.82 | 25.61 | 25.41 | $25 \cdot 20$ | 25.00 |
| 24 | 26.94 | 26.73 | 26.51 | $26 \cdot 30$ | 26.09 |
| 25 | 28.05 | 27.83 | $27 \cdot 61$ | $27 \cdot 39$ | $27 \cdot 17$ |

$46^{\circ}-50^{\circ}$
COMMERCIAL VALUE.

|  | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 29.17 | 28.94 | $28 \cdot 70$ | 28.47 | 28.23 |
| 27 | 30.31 | 30.06 | 29.81 | 29.56 | 29.31 |
| 28 | 31.45 | 3 I•19 | 30.93 | $30 \cdot 67$ | $30 \cdot 41$ |
| 29 | 32.54 | $32 \cdot 28$ | 32.01 | 31.75 | 31.48 |
| 30 | $33 \cdot 64$ | $33 \cdot 36$ | 33.08 | $32 \cdot 80$ | 32.52 |
| 31 | 34.73 | 34.44 | $34 \cdot 16$ | 33.87 | 33.59 |
| 32 | $35 \cdot 74$ | $35 \cdot 45$ | $35 \cdot 17$ | 34.88 | 34.59 |
| 33 | $36 \cdot 78$ | $36 \cdot 48$ | $36 \cdot 19$ | $35 \cdot 89$ | $35 \cdot 60$ |
| 34 | $37 \cdot 79$ | $37 \cdot 50$ | $37 \cdot 21$ | $36 \cdot 92$ | $36 \cdot 63$ |
| 35 | $38 \cdot 79$ | $38 \cdot 50$ | $38 \cdot 20$ | 37.91 | $37 \cdot 62$ |
| 36 | 39.81 | 39.52 | $39^{.22}$ | $38 \cdot 92$ | $38 \cdot 63$ |
| 37 | $40 \cdot 81$ | 40.51 | $40 \cdot 22$ | $39^{\circ} 92$ | 39.63 |
| 38 | 41.86 | 41.56 | 41.26 | $40 \cdot 96$ | $40 \cdot 66$ |
| 39 | $42 \cdot 78$ | $42 \cdot 50$ | $42 \cdot 21$ | 41.93 | $4 \mathrm{I} \cdot 64$ |
| 40 | $43 \cdot 77$ | $43 \cdot 48$ | $43 \cdot 19$ | 43.90 | $42 \cdot 61$ |
| 41 | 44.71 | $44 \cdot 42$ | $44^{1} 14$ | 43.85 | 43.57 |
| 42 | $45 \cdot 67$ | $45 \cdot 39$ | $45^{10}$ | 44.82 | 44.53 |
| 43 | $46 \cdot 62$ | $46 \cdot 34$ | $46 \cdot 06$ | $45 \cdot 78$ | 45.50 |
| 44 | 47.60 | $47 \cdot 32$ | 47.05 | $46 \cdot 77$ | $46 \cdot 50$ |
| 45 | $48 \cdot 58$ | $48 \cdot 31$ | $48 \cdot 04$ | $47 \cdot 77$ | $47 \cdot 50$ |
| 46 | 49.57 | $49 \cdot 30$ | $49^{\circ} 03$ | $48 \cdot 76$ | $48 \cdot 49$ |
| 47 | 50.55 | 50.28 | 50.02 | $49 \cdot 75$ | $49 \cdot 48$ |
| 48 | 51.50 | 51.23 | 50.97 | $50 \cdot 70$ | 50.43 |
| 49 | 52.46 | 52.20 | 51.93 | $51 \cdot 67$ | $5 \mathrm{I} \cdot 4 \mathrm{I}$ |
| 50 | 53.43 | $53 \cdot 17$ | 52.92 | 52.66 | 52.41 |

$46^{\circ}-50^{\circ}$
COMMERCIAL VALUE.

| 完家 | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 54.43 | 54.18 | 53.92 | $53 \cdot 67$ | 53.41 |
| 52 | 55.40 | $55 \cdot 15$ | 54.89 | 54.64 | 54.38 |
| 53 | $56 \cdot 37$ | 56.11 | 55.86 | $55 \cdot 60$ | $55 \cdot 35$ |
| 54 | $57 \cdot 34$ | 57.09 | 56.85 | $56 \cdot 60$ | $56 \cdot 36$ |
| 55 | $58 \cdot 32$ | 58.08 | 57.83 | 57.59 | $57 \cdot 34$ |
| 56 | $59 \cdot 31$ | 59.07 | 58.82 | $58 \cdot 58$ | $58 \cdot 33$ |
| 57 | $60 \cdot 29$ | 60.05 | 59.80 | 59.56 | 59.32 |
| 58 | $61 \cdot 27$ | 61.03 | $60 \cdot 79$ | 60.55 | $60 \cdot 31$ |
| 59 | $62 \cdot 26$ | 62.02 | $61 \cdot 78$ | 61.54 | 61.30 |
| 60 | $63 \cdot 23$ | $62 \cdot 99$ | $62 \cdot 76$ | 62.52 | $62 \cdot 28$ |
| 61 | $64 \cdot 23$ | 63.99 | $63 \cdot 76$ | 63.52 | $63 \cdot 28$ |
| 62 | $65 \cdot 22$ | 64.99 | 64.75 | 64.52 | $64 \cdot 28$ |
| 63 | $66 \cdot 22$ | $65 \cdot 99$ | $65 \cdot 75$ | $65 \cdot 52$ | $65 \cdot 28$ |
| 64 | $67 \cdot 22$ | $66 \cdot 99$ | 66.75 | $66 \cdot 52$ | $66 \cdot 28$ |
| 65 | $68 \cdot 21$ | $67 \cdot 98$ | $67 \cdot 74$ | 67.51 | $67 \cdot 27$ |
| 66 | $69 \cdot 20$ | $68 \cdot 96$ | $68 \cdot 73$ | $68 \cdot 49$ | 68.26 |
| 67 | 70.19 | $69 \cdot 96$ | $69 \cdot 72$ | 69.49 | 69.25 |
| 68 | 71.17 | $70 \cdot 94$ | $70 \cdot 70$ | $70 \cdot 47$ | $70 \cdot 24$ |
| 69 | $72 \cdot 17$ | $71 \cdot 93$ | 71.70 | 71.46 | 71.23 |
| 70 | $73 \cdot 13$ | 72.90 | $72 \cdot 66$ | 72.43 | $72 \cdot 20$ |
| 71 | $74^{111}$ | 73.88 | $73 \cdot 64$ | 73.41 | $73 \cdot 18$ |
| 72 | 75.09 | 74.86 | 74.64 | 74.41 | 74.19 |
| 73 | $76 \cdot 10$ | $75 \cdot 87$ | $75 \cdot 65$ | $75 \cdot 42$ | 75.19 |
| 74 | 77.09 | 76.87 | $76 \cdot 64$ | $76 \cdot 42$ | 76•19 |
| 75 | 78.08 | 77.85 | $77 \cdot 63$ | $77 \cdot 40$ | 77-18 |

$46^{\circ}-50^{\circ}$
COMMERCTAL VALUE.

| $\left\lvert\, \begin{aligned} & \text { 出 } \\ & \text { 気 } \\ & 0 \end{aligned}\right.$ | $46^{\circ}$ | $47^{\circ}$ | $48^{\circ}$ | $49^{\circ}$ | $50^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 79.06 | $78 \cdot 84$ | $78 \cdot 61$ | $78 \cdot 39$ | 78-16 |
| 77 | $80 \cdot 04$ | $79 \cdot 82$ | $79 \cdot 60$ | $79 \cdot 38$ | $79 \cdot 16$ |
| 78 | 81.05 | $80 \cdot 83$ | $80 \cdot 60$ | 80.38 | $80 \cdot 16$ |
| 79 | $82 \cdot 02$ | $8 \mathrm{I} \cdot 80$ | 81.58 | 8r.36 | 8I•14 |
| 80 | 83.02 | $82 \cdot 80$ | 82.57 | 82.35 | $82 \cdot 13$ |
| 81 | 84.01 | $83 \cdot 79$ | 83.57 | 83.35 | $83 \cdot 13$ |
| 82 | 84.99 | 84.77 | 84.55 | 84.33 | 84.II |
| 83 | 85.98 | $85 \cdot 76$ | 85.55 | $85 \cdot 33$ | 85.11 |
| 84 | $86 \cdot 97$ | $86 \cdot 75$ | $86 \cdot 54$ | $86 \cdot 32$ | 86.11 |
| 85 | 87.94 | $87 \cdot 72$ | $87 \cdot 51$ | $87 \cdot 29$ | 87.08 |
| 86 | 88.93 | $88 \cdot 72$ | $88 \cdot 50$ | 88.29 | 88.08 |
| 87 | 89.88 | 89.67 | $89 \cdot 46$ | $89 \cdot 25$ | 89.04 |
| 88 | 90.83 | $90 \cdot 62$ | $90 \cdot 42$ | 90.2I | $90 \cdot 00$ |
| 89 | 91.82 | 91.6I | 91.41 | -91.20 | 91.00 |
| 90 | $92 \cdot 78$ | $92 \cdot 58$ | $92 \cdot 37$ | 92.17 | 91:96 |
| 91 | 93.72 | $93 \cdot 52$ | 93.32 | $93 \cdot 12$ | 92.92 |
| 92 | 94.70 | 94.50 | 94.31 | $94^{\cdot 11}$ | 93.91 |
| 93 | $95 \cdot 71$ | $95 \cdot 51$ | $95 \cdot 32$ | $95 \cdot 12$ | 94.93 |
| 94 | 96.61 | 96.42 | $96 \cdot 22$ | 96.02 | 95.83 |
| 95 | 97.51 | $97 \cdot 33$ | 97•14 | $96 \cdot 96$ | $96 \cdot 77$ |
| 96 | $98 \cdot 46$ | $98 \cdot 28$ | 98.11 | 97*93 | $97 \cdot 75$ |
| 97 | $99 \cdot 42$ | $99 \cdot 24$ | 99.07 | 98.89 | 98.71 |
| 98 | $100 \cdot 37$ | $100 \cdot 20$ | 100.03 | 99.86 | $99 \cdot 6$ |
| 99 | 101.34 | IOI•18 | 101.02 | $100 \cdot 86$ | $100 \cdot 70$ |
| 100 | $102 \cdot 29$ | $102 \cdot 12$ | 101.94 | $101 \cdot 77$ | 101.60 |

$36^{\circ}$
$-40^{\circ}$
COMMERCIAL VALUE.

| 感宫 | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I. 53 | 1.47 | 1.40 | I 34 | 1.28 |
| 2 | 2.43 | $2 \cdot 39$ | $2 \cdot 34$ | $2 \cdot 30$ | $2 \cdot 26$ |
| 3 | $3 \cdot 4 \mathrm{I}$ | $3 \cdot 37$ | $3 \cdot 33$ | $3 \cdot 29$ | $3 \cdot 25$ |
| 4 | $4 \cdot 41$ | $4 \cdot 37$ | $4 \cdot 33$ | $4 \cdot 29$ | 4.25 |
| 5 | $5 \cdot 40$ | $5 \cdot 36$ | $5 \cdot 33$ | $5 \cdot 29$ | $5 \cdot 25$ |
| 6 | $6 \cdot 46$ | $6 \cdot 42$ | $6 \cdot 37$ | $6 \cdot 33$ | $6 \cdot 29$ |
| 7 | $7 \cdot 50$ | $7 \cdot 45$ | $7 \cdot 4 \mathrm{I}$ | $7 \cdot 36$ | $7 \cdot 32$ |
| 8 | $8 \cdot 54$ | $8 \cdot 49$ | $8 \cdot 43$ | $8 \cdot 38$ | $8 \cdot 33$ |
| 9 | $9 \cdot 57$ | $9 \cdot 5 \mathrm{I}$ | $9 \cdot 46$ | $9 \cdot 40$ | $9 \cdot 35$ |
| 10 | 10.59 | 10.53 | 10.47 | 10.41 | $10 \cdot 35$ |
| 11 | 11.71 | 11.64 | 11.56 | II 49 | II 142 |
| 12 | 12.76 | 12.69 | 12.61 | 12.54 | 12.46 |
| 13 | 13.82 | 13.73 | 13.65 | 13.56 | 13.48 |
| 14 | 14.90 | 14.8 I | 14.71 | 14.62 | 14.52 |
| 15 | $16 \cdot 01$ | 15.90 | 15.80 | 15.69 | 15.58 |
| 16 | 17.08 | 16.97 | 16.86 | 16.75 | 16.64 |
| 17 | $18 \cdot 18$ | 18.05 | 17.93 | 17.80 | 17.68 |
| 18 | 19.26 | $19 \cdot 12$ | 18.99 | 18.85 | $18 \cdot 72$ |
| 19 | $20 \cdot 37$ | 20.22 | 20.08 | 19.93 | 19.79 |
| 20 | 21.49 | $2 \mathrm{I} \cdot 33$ | 2I•16 | 21.00 | $20 \cdot 84$ |
| 21 | 22.62 | 22.44 | 22.27 | 22.09 | 21.91 |
| 22 | 23.73 | 23.54 | 23.35 | 23.16 | 22.97 |
| 23 | 24.80 | 24.60 | 24.40 | 24.20 | 24.00 |
| 24 | 25.88 | $25 \cdot 67$ | 25.47 | 25.26 | 25.05 |
| 25 | 26.95 | $26 \cdot 73$ | 26.51 | 26.29 | 26.07 |

$51^{\circ}-55^{\circ}$
COMMERCIAL VALUE．

| 密品定 | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 28.00 | $27 \cdot 77$ | $27 \cdot 55$ | $27 \cdot 32$ | 27.09 |
| 27 | 29.07 | $28 \cdot 84$ | 28.60 | $28 \cdot 37$ | 28－13 |
| 28 | $30 \cdot 17$ | 29.92 | 29.68 | 29.43 | 29．19 |
| 29 | 3I－12 | $30 \cdot 86$ | $30 \cdot 61$ | $30 \cdot 35$ | 30．19 |
| 30 | $32 \cdot 26$ | 32.00 | 31.73 | 31.47 | 31.21 |
| 31 | $33 \cdot 32$ | 33.05 | $32 \cdot 79$ | 32.52 | $32 \cdot 25$ |
| 32 | $34 \cdot 32$ | 34.04 | $33 \cdot 77$ | 33.49 | $33 \cdot 22$ |
| 33 | $35 \cdot 33$ | 35.06 | 34.80 | 34.53 | $34 \cdot 26$ |
| 34 | $36 \cdot 35$ | $36 \cdot 08$ | $35 \cdot 80$ | 35.53 | $35 \cdot 25$ |
| 35 | $37 \cdot 35$ | 37.07 | $36 \cdot 80$ | $36 \cdot 52$ | $36 \cdot 25$ |
| 36 | $38 \cdot 36$ | 38.09 | 37.82 | 37.55 | 5 |
| 37 | $39 \cdot 36$ | 39.08 | $38 \cdot 81$ | $38 \cdot 53$ | $38 \cdot 26$ |
| 38 | $40 \cdot 39$ | $40 \cdot 12$ | $39 \cdot 84$ | 39.57 | $39 \cdot 30$ |
| 39 | 41．36 | 41.09 | $40 \cdot 8 \mathrm{I}$ | $40 \cdot 54$ | $40 \cdot 26$ |
| 40 | $42 \cdot 34$ | $42 \cdot 07$ | 41.80 | 41．53 | $41 \cdot 26$ |
| 41 | $43 \cdot 30$ | $43 \cdot 03$ | $42 \cdot 77$ | $42 \cdot 50$ | $42 \cdot 23$ |
| 42 | $44 \cdot 27$ | 44.01 | $43 \cdot 75$ | 43.49 | $43 \cdot 23$ |
| 43 | $45 \cdot 24$ | 44.98 | 44.73 | 44.47 | 44.21 |
| 44 | $46 \cdot 24$ | 45.99 | $45 \cdot 73$ | $45 \cdot 48$ | $45 \cdot 22$ |
| 45 | $47^{2} 2$ | $46 \cdot 98$ | $46 \cdot 73$ | $46 \cdot 47$ | $46 \cdot 21$ |
| 46 | $48 \cdot 23$ | 47.97 | $47 \cdot 72$ | $47 \cdot 46$ | $47 \cdot 20$ |
| 47 | $49 \cdot 22$ | $48 \cdot 97$ | $48 \cdot 71$ | $48 \cdot 46$ | $48 \cdot 20$ |
| 48 | $50 \cdot 18$ | $49^{\circ} 93$ | $49 \cdot 67$ | $49 \cdot 42$ | $49^{\circ} 17$ |
| 49 | 51－16 | 50.92 | 50.67 | $50 \cdot 43$ | $50 \cdot 18$ |
| 50 | $52 \cdot 16$ | 51.91 | 51.67 | 51.42 | $51 \cdot 17$ |

$51^{\circ}-55^{\circ}$
COMMERCIAL VALUE．

| 密宫号 | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 53.17 | 52.92 | $52 \cdot 67$ | 52.43 | 52．18 |
| 52 | $54 \cdot 13$ | $53 \cdot 89$ | $53 \cdot 64$ | 53.40 | $53 \cdot 15$ |
| 53 | 55．11 | 54.87 | 54.63 | 54.39 | 54．15 |
| 54 | $56 \cdot 12$ | 55.88 | $55 \cdot 64$ | 55.40 | 55．16 |
| 55 | $57 \cdot 10$ | 56.86 | 56.63 | $56 \cdot 39$ | $56 \cdot 15$ |
| 56 | 58.09 | 57.86 | 57.62 | 57.39 | 57．15 |
| 57 | 59.08 | 58.85 | 58.61 | $58 \cdot 38$ | 58．14 |
| 58 | 60.07 | $59 \cdot 84$ | 59.60 | 59.37 | $59 \cdot 13$ |
| 59 | 61.07 | 60.83 | $60 \cdot 60$ | $60 \cdot 36$ | 60．13 |
| 60 | 62.05 | $6 \mathrm{I} \cdot 82$ | 61.58 | 61.35 | $6 \mathrm{I} \cdot 12$ |
| 61 | $63 \cdot 05$ | $62 \cdot 82$ | 62.58 | 62.35 | $62 \cdot 12$ |
| 62 | 64.05 | $63 \cdot 82$ | 63.59 | $63 \cdot 36$ | $63 \cdot 13$ |
| 63 | 65.05 | $64 \cdot 82$ | 64.58 | 64.35 | $64 \cdot 12$ |
| 64 | 66.05 | $65 \cdot 82$ | 65.59 | $65 \cdot 36$ | $65 \cdot 13$ |
| 65 | 67.04 | $66 \cdot 81$ | 66.58 | $66 \cdot 35$ | $66 \cdot 12$ |
| 66 | 68.03 | $67 \cdot 80$ | 67.56 | $67 \cdot 33$ | $67 \cdot 10$ |
| 67 | 69.02 | $68 \cdot 79$ | 68.57 | $68 \cdot 34$ | $68 \cdot 1$ I |
| 68 | 70.01 | $69 \cdot 78$ | 69.56 | $69 \cdot 33$ | $69 \cdot 10$ |
| 69 | 71.01 | 70.78 | 70.56 | $70 \cdot 33$ | 70．11 |
| 70 | 71．98 | 71.75 | 71.53 | 71.30 | 71.08 |
| 71 | 72.96 | $72 \cdot 74$ | 72.53 | $72 \cdot 31$ | 72.09 |
| 72 | 73.97 | 73.75 | 73.52 | 73.30 | 73.08 |
| 73 | 74.97 | 7475 | 74.52 | $74 \cdot 30$ | 74.08 |
| 74 | 75.97 | 7575 | 75.52 | $75 \cdot 30$ | 75.08 |
| 75 | $76 \cdot 96$ | $76 \cdot 74$ | $76 \cdot 51$ | $76 \cdot 29$ | 76.07 |

$51^{\circ}-55^{\circ}$
COMMERCIAL VALUE.

| 気 | $51^{\circ}$ | $52^{\circ}$ | $53^{\circ}$ | $54^{\circ}$ | $55^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 77.94 | $77 \cdot 72$ | 77.51 | $77 \cdot 29$ | 77.07 |
| 77 | $78 \cdot 94$ | $78 \cdot 72$ | $78 \cdot 51$ | $78 \cdot 29$ | 78.07 |
| 78 | 79.94 | $79 \cdot{ }^{2}$ | 79.51 | $79 \cdot 29$ | 79.07 |
| 79 | 80.92 | $80 \cdot 70$ | $80 \cdot 49$ | 80.27 | 80.05 |
| 80 | 81.92 | 81.70 | 81.49 | 81.27 | 81.06 |
| 81 | 82.91 | $82 \cdot 70$ | 82.48 | 82.27 | 82.05 |
| 82 | 83.90 | $83 \cdot 69$ | 83.47 | $83 \cdot 26$ | 83.05 |
| 83 | 84.90 | 84.69 | 84.47 | 84.26 | 84.05 |
| 84 | 85.90 | 85.69 | 85.47 | $85 \cdot 26$ | 85.05 |
| 85 | $86 \cdot 87$ | $86 \cdot 66$ | $86 \cdot 45$ | $86 \cdot 24$ | $86 \cdot 03$ |
| 86 | 87.87 | 87.66 | 87.46 | 87.25 |  |
| 87 | $88 \cdot 83$ | $88 \cdot 62$ | $88 \cdot 42$ | $88 \cdot 2 \mathrm{I}$ | $88 \cdot 00$ |
| 88 | 89.80 | 89.60 | 89.39 | 89.19 | 88.99 |
| 89 | $90 \cdot 80$ | $90 \cdot 60$ | $90 \cdot 40$ | 90.20 | $90 \cdot 00$ |
| 90 | $91 \cdot 76$ | 91.56 | 91.37 | 91•17 | 90.97 |
| 91 | 92.73 | $92 \cdot 54$ | 92•34 | 92-15 | 9I•96 |
| 92 | $93 \cdot 72$ | 93.53 | $93 \cdot 34$ | 93-15 | $92 \cdot 96$ |
| 93 | 94.74 | 94.54 | 94.35 | 94.15 | 93.96 |
| 94 | $95 \cdot 64$ | $95 \cdot 46$ | $95 \cdot 27$ | $95 \cdot 09$ | 94.90 |
| 95 | $96 \cdot 59$ | $96 \cdot 4 \mathrm{I}$ | $96 \cdot 24$ | $96 \cdot 06$ | $95 \cdot 88$ |
| 96 | 97.57 | $97 \cdot 39$ | $97 \cdot 22$ | 97.04 | 96.86 |
| 97 | 98.54 | $98 \cdot 37$ | $98 \cdot 20$ | 98.03 | 97.86 |
| 98 | 99.52 | $99 \cdot 35$ | 99'18 | $99^{\circ} \mathrm{I}$ | $98 \cdot 84$ |
| 99 | 100.53 | 100•35 | 100.18 | $100 \cdot 00$ | 99.83 |
| 100 | 101.44 | IOI.28 | 101.12 | 100.96 | $100 \cdot 80$ |

$56^{\circ}-60^{\circ}$

## COMMERCIAL VALUE.

| 景 | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1. 22 | $1 \cdot 17$ | I•II | 1.06 | I 00 |
| 2 | $2 \cdot 21$ | $2 \cdot 16$ | $2 \cdot 10$ | 2.05 | 2.00 |
| 3 | $3 \cdot 20$ | $3 \cdot 15$ | 3.10 | 3.05 | $3 \cdot 00$ |
| 4 | $4 \cdot 20$ | $4 \cdot 15$ | $4 \cdot 10$ | $4 \cdot 05$ | $4 \cdot 00$ |
| 5 | $5 \cdot 20$ | 5•15 | $5 \cdot 10$ | $5 \cdot 05$ | $5 \cdot 00$ |
| 6 | $6 \cdot 23$ | $6 \cdot 17$ | $6 \cdot 12$ | 6.06 | 6.00 |
| 7 | $7 \cdot 26$ | 7-18 | $7 \cdot 13$ | $7 \cdot 06$ | $7 \cdot 00$ |
| 8 | $8 \cdot 26$ | $8 \cdot 20$ | 8.13 | 8.07 | 8.00 |
| 9 | $9 \cdot 28$ | $9 \cdot 21$ | $9 \cdot 14$ | 9.07 | $9 \cdot 00$ |
| 10 | 10.28 | 10.21 | 10.14 | 10.07 | 10.00 |
| 11 | I 1.34 | I 1.25 | $11 \cdot 17$ | 11.08 | 11.00 |
| 12 | 12.37 | 12.28 | 12.18 | 12.09 | 12.00 |
| 13 | 13.38 | 13.29 | 13.19 | 13.10 | 13.00 |
| 14 | 14.42 | 14.3 I | $14^{.21}$ | 14.10 | 14.00 |
| 15 | $15 \cdot 46$ | 15.35 | $15 \cdot 23$ | $15 \cdot 12$ | 15.00 |
| 16 | $16 \cdot 51$ | $16 \cdot 38$ | 16.26 | $16 \cdot 13$ | 16.00 |
| 17 | 17.54 | 17.41 | 17.27 | $17 \cdot 14$ | 17.00 |
| 18 | $18 \cdot 58$ | 18.43 | 18.29 | $18 \cdot 14$ | 18.00 |
| 19 | 19.63 | 19.47 | 19.32 | $19 \cdot 16$ | 19.00 |
| 20 | $20 \cdot 67$ | 20.50 | $20 \cdot 34$ | $20 \cdot 17$ | 20.00 |
| 21 | 21.73 | 21.55 | $21 \cdot 36$ | 2I-18 | 21.00 |
| 22 | 22.78 | 22.58 | $22 \cdot 39$ | 22.19 | 22.00 |
| 23 | $23 \cdot 80$ | 23.60 | 23.40 | 23.20 | 23.00 |
| 24 | $24 \cdot 84$ | 24.63 | 24.42 | $24^{2}$ I | 24.00 |
| 25 | 25.86 | $25 \cdot 64$ | $25 \cdot 43$ | 25.21 | 25.00 |

COMMERCLIL VALUE.

|  | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $26 \cdot 87$ | $26 \cdot 65$ | $26 \cdot 44$ | $26 \cdot 22$ | $26 \cdot 00$ |
| 27 | 27.90 | $27 \cdot 68$ | $27 \cdot 45$ | 27.23 | $27^{\circ} 00$ |
| 28 | 28.95 | 28.71 | 28.48 | $28 \cdot 24$ | 28.00 |
| 29 | 29.95 | 29.71 | 29.48 | $29 \cdot 24$ | 29.00 |
| 30 | $30 \cdot 97$ | 30.73 | 30.48 | 30.24 | 30.00 |
| 31 | $32 \cdot 00$ | 3175 | 31.50 | $3 \mathrm{x} \cdot 25$ | 31.00 |
| 32 | $32 \cdot 98$ | $32 \cdot 73$ | 32.49 | $32 \cdot 24$ | 32.00 |
| 33 | 34.01 | 33.76 | 33.50 | 33.25 | 33.00 |
| 34 | $35^{\circ} 00$ | 3475 | 3450 | 34.25 | 34.00 |
| 35 | $36 \cdot 00$ | $35 \cdot 75$ | $35 \cdot 50$ | $35 \cdot 25$ | 35.00 |
| 36 | 37.02 | $36 \cdot 77$ | $36 \cdot 51$ | $36 \cdot 26$ | 36.00 |
| 37 | $38 \cdot 01$ | $37 \cdot 76$ | 37.50 | 37.25 |  |
| 38 | $38 \cdot 04$ | $38 \cdot 78$ | $38 \cdot 52$ | $38 \cdot 26$ |  |
| 39 | 40.01 | $39 \cdot 76$ | $39^{\circ}{ }^{\circ}$ | 39.25 | 39.00 |
| 40 | 41.01 | $40 \cdot 76$ | $40 \cdot 50$ | $40 \cdot 25$ | $40 \cdot 00$ |
| 41 | 41.98 | $4 \mathrm{I} \cdot 74$ | 41.49 | 41.25 | 41.00 |
| 42 | $42 \cdot 98$ | $42 \cdot 74$ | $42 \cdot 49$ | $42 \cdot 25$ | $42 \cdot 00$ |
| 43 | 43.97 | $43 \cdot 73$ | $43 \cdot 48$ | $43 \cdot 24$ | 43.00 |
| 44 | $44 \cdot 98$ | $44 \cdot 73$ | 44.49 | $44^{\cdot 24}$ | $44^{\circ} 00$ |
| 45 | $45 \cdot 97$ | $45 \cdot 73$ | $45 \cdot 48$ | $45^{\cdot 2}+$ | 45.00 |
| 46 | $46 \cdot 96$ | $46 \cdot 72$ | $46 \cdot 48$ | $46 \cdot 24$ | $46 \cdot 00$ |
| 47 | 47.96 | $47 \cdot 72$ | $47 \cdot 4^{8}$ | $47 \cdot 24$ | 47.00 |
| 48 | $48 \cdot 94$ | $48 \cdot 70$ | $48 \cdot 47$ | $48 \cdot 23$ | $48 \cdot 00$ |
| 49 | 49.94 | $49 \cdot 71$ | $49 \cdot 47$ | $49 \cdot 2$ | 49.00 |
| 50 | 50.94 | $50 \cdot 70$ | 50.47 | 50.23 | $50 \cdot 00$ |

$56^{\circ}-60^{\circ}$
COMMERCIAL VALUE.

| $\mid$ | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 51.94 | 51.71 | 51.47 | 51.24 |  |
| 52 | 52.92 | 52.69 | 52.46 | 52.23 | 52 |
| 53 | $53 \cdot 92$ | 53.69 | 53.46 | 53.23 | 53.00 |
| 54 | 54.93 | 54.70 | 54.46 | 54.23 | 54.00 |
| 55 | 55.92 | $55 \cdot 69$ | $55 \cdot 46$ | 55.23 | 55 |
| 56 | $56 \cdot 92$ | 56.69 | $56 \cdot 46$ | 56.23 | 56.00 |
| 57 | 57.91 | 57.68 | 57.46 | 57.23 | 57.00 |
| 58 | 58.90 | 58.68 | 58.45 | 58.23 |  |
| 59 | 59.90 | 59.68 | 59.45 | 59.23 | -00 |
| 60 | $60 \cdot 90$ | $60 \cdot 67$ | $60 \cdot 45$ | 60 |  |
| 61 | 61.90 | 61. | 61.45 | $61 \cdot 22$ | 61.00 |
| 62 | $62 \cdot 90$ | $62 \cdot 68$ | 62.45 | 62.23 | 62.00 |
| 63 | 63.90 | $63 \cdot 67$ | 63.45 | 63.22 | 63.00 |
| 64 | 64.90 | 64.68 | $64 \cdot 45$ | 64.23 | 00 |
| 65 | $65 \cdot 90$ | 65. | 65.45 | 65.22 |  |
| 66 | 66.88 | $66 \cdot 66$ | $66 \cdot 44$ | $66 \cdot 22$ | $6 \cdot 00$ |
| 67 | 67.89 | $67 \cdot 67$ | $67 \cdot 44$ | 67.22 | -0 |
| 68 | 68.88 | 68.66 | 68.44 | 68.22 | 68.00 |
| 69 | $69 \cdot 89$ | $69 \cdot 67$ | $69 \cdot 44$ | $69 \cdot 22$ | 69.00 |
| 70 | 70.86 | $70 \cdot 65$ | $70 \cdot 43$ | $70 \cdot 22$ |  |
| 71 | 71.8 | 71.65 | 71.44 | 71.22 | 71.00 |
| 72 | 72.86 | $72 \cdot 65$ | 72.43 | $72 \cdot 22$ | 72.00 |
| 73 | 73.86 | 73.65 | 73.43 | 73.22 | 73.00 |
| 74 | 74.86 | 74.65 | 74.43 | 74.22 | 74.00 |
| 75 | 75.86 | 75.64 | 75.43 | 75.21 | $\bigcirc$ |

$56^{\circ}-60^{\circ}$
COMMERCIAL VALUE.

|  | $56^{\circ}$ | $57^{\circ}$ | $58^{\circ}$ | $59^{\circ}$ | $60^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $76 \cdot 86$ | $76 \cdot 64$ | $76 \cdot 43$ | $76 \cdot 21$ | $76 \cdot 00$ |
| 77 | $77 \cdot 86$ | $77 \cdot 64$ | $77 \cdot 43$ | $77 \cdot 21$ | $77 \cdot 00$ |
| 78 | $78 \cdot 86$ | $78 \cdot 64$ | $78 \cdot 43$ | $78 \cdot 21$ | $78 \cdot 00$ |
| 79 | 79.84 | 79.63 | $79 \cdot 42$ | 79.21 | $79 \cdot 00$ |
| 80 | 80.85 | 80.64 | $80 \cdot 42$ | 80.21 | $80 \cdot 00$ |
| 81 | $8 \mathrm{I} \cdot 84$ | $8 \mathrm{I} \cdot 63$ | $81 \cdot 42$ | $8 \mathrm{I} \cdot \mathrm{II}$ | 81.00 |
| 82 | $82 \cdot 84$ | $82 \cdot 63$ | $82 \cdot 42$ | $82 \cdot 21$ | 82.00 |
| 83 | 83.84 | $83 \cdot 63$ | 83.42 | 83.21 | 83.00 |
| 84 | 84.84 | 84.63 | 84.42 | 84.21 | 84.00 |
| 85 | $85 \cdot 82$ | $85 \cdot 62$ | $85 \cdot 41$ | 85.21 |  |
| 86 | $86 \cdot 83$ | 86.62 | $86 \cdot 42$ | 86.21 | 86.00 |
| 87 | 87.80 | 87.60 | 87.40 | 87.20 | 87.00 |
| 88 | $88 \cdot 79$ | $88 \cdot 59$ | $88 \cdot 40$ | $88 \cdot 20$ | 88.00 |
| 89 | $89 \cdot 80$ | 89.60 | $89 \cdot 40$ | $89 \cdot 20$ | 89.00 |
| 90 | 90.78 | $90 \cdot 58$ | $90 \cdot 38$ | 90.19 | $90 \cdot 00$ |
| 91 | $91 \cdot 77$ | 91.58 | 91.38 | 9I'19 | 91.00 |
| 92 | $92 \cdot 77$ | 92.58 | $92 \cdot 38$ | 92.19 | $92 \cdot 00$ |
| 93 | 93.77 | 93.58 | 93.38 | $93 \cdot 19$ | 93.00 |
| 94 | $94 \cdot 72$ | $94 \cdot 54$ | 94.36 | $94 \cdot 18$ | 94.00 |
| 95 | $95 \cdot 70$ | $95 \cdot 53$ | $95 \cdot 35$ | $95 \cdot 18$ | 95.00 |
| 96 | $96 \cdot 69$ | $96 \cdot 52$ | $96 \cdot 34$ | $96 \cdot 17$ | $96 \cdot 00$ |
| 97 | $97 \cdot 69$ | 97.52 | $97 \cdot 34$ | $97 \cdot 17$ | 97.00 |
| 98 | $98 \cdot 67$ | $98 \cdot 50$ | $98 \cdot 34$ | $98 \cdot 17$ | 98.00 |
| 99 | $99 \cdot 66$ | 99.50 | 99.33 | 99*17 | 99.00 |
| 100 | $100 \cdot 64$ | $100 \cdot 48$ | $100 \cdot 3^{2}$ | $100 \cdot 16$ | $100 \cdot 00$ |

$61^{\circ}-65^{\circ}$
COMMERCIAL VALUE．

| 家定家 | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.96 | $0 \cdot 91$ | 0.87 | 0.82 | 0.78 |
| 2 | 1.95 | 1.90 | I．84 | 1．79 | I．74 |
| 3 | 2.95 | 2.89 | 2.84 | $2 \cdot 78$ | $2 \cdot 73$ |
| 4 | 3.94 | 3.89 | $3 \cdot 83$ | $3 \cdot 78$ | $3 \cdot 72$ |
| 5 | 4.94 | $4 \cdot 87$ | $4 \cdot 8 \mathrm{I}$ | $4 \cdot 74$ | $4 \cdot 68$ |
| 6 | 5.93 | － 5.86 | $5 \cdot 80$ | $5 \cdot 73$ | $5 \cdot 66$ |
| 7 | $6 \cdot 93$ | $6 \cdot 86$ | $6 \cdot 78$ | $6 \cdot 71$ | $6 \cdot 64$ |
| 8 | $7 \cdot 92$ | $7 \cdot 85$ | $7 \cdot 77$ | $7 \cdot 70$ | $7 \cdot 62$ |
| 9 | $8 \cdot 92$ | $8 \cdot 84$ | $8 \cdot 77$ | $8 \cdot 69$ | $8 \cdot 61$ |
| 10 | $9 \cdot 91$ | $9 \cdot 82$ | $9 \cdot 73$ | $9 \cdot 64$ | 9.55 |
| 11 | 10.90 | 10.81 | 10.71 | 10．61 | 10.52 |
| 12 | I 1．90 | 11.80 | 11.70 | II 60 | 11.50 |
| 13 | 12.89 | 12.78 | 12.68 | 12.57 | 12.46 |
| 14 | 13.88 | 13.77 | 13.65 | 13.54 | 13.42 |
| 15 | 14.87 | 14.75 | 14.62 | 14.50 | 14.37 |
| 16 | 15.87 | 15.74 | 15.60 | 15.47 | 15：34 |
| 17 | 16.86 | $16 \cdot 72$ | 16.58 | 16.44 | 16.30 |
| 18 | 17.85 | 17.70 | 17.56 | 17.41 | 17.26 |
| 19 | 18.84 | 18.68 | 18：52 | 18.36 | $18 \cdot 20$ |
| 20 | 19.83 | 19.66 | 19.48 | 19．31 | 19．14 |
| 21 | 20.82 | 20.64 | $20 \cdot 45$ | 20.27 | 20.09 |
| 22 | $2 \mathrm{I} \cdot 8 \mathrm{I}$ | 21.62 | 21.42 | 21.23 | 21.04 |
| 23 | 22.80 | 22.60 | 22.40 | 22.20 | 22.00 |
| 24 | 23.80 | 23.59 | $23 \cdot 39$ | 23．18 | 22.98 |
| 25 | 24.79 | 24.59 | 24.38 | 24．18 | 23.97 |

COMMERCIAL VALUE.

| 家品 | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $25 \cdot 79$ | $25 \cdot 58$ | $25 \cdot 36$ | $25 \cdot 15$ | 24.94 |
| 27 | $26 \cdot 78$ | $26 \cdot 56$ | $26 \cdot 34$ | $26 \cdot 12$ | 25.90 |
| 28 | 27.78 | 27.56 | $27 \cdot 34$ | $27 \cdot 12$ | 26.90 |
| 29 | $28 \cdot 77$ | 28.55 | $28 \cdot 32$ | 28-10 | 27.87 |
| 30 | $29 \cdot 77$ | 29.54 | 29.31 | 29.08 | 28.85 |
| 31 | $30 \cdot 77$ | 30.55 | $30 \cdot 32$ | $30 \cdot 10$ | 29.87 |
| 32 | 31.77 | 31.53 | $31 \cdot 30$ | 31.06 | 30.83 |
| 33 | $32 \cdot 77$ | $32 \cdot 54$ | $32 \cdot 31$ | 32.08 | 31.85 |
| 34 | 33.77 | 33.54 | 33.30 | 33.07 | 32.84 |
| 35 | 34.77 | 34.53 | 34.30 | 34.06 | 33.83 |
| 36 | $35 \cdot 77$ | 35.54 | $35 \cdot 31$ | 35.08 | 34.85 |
| 37 | $36 \cdot 76$ | $36 \cdot 52$ | $36 \cdot 29$ | 36.05 | 35.81 |
| 38 | $37 \cdot 76$ | 37.53 | $37 \cdot 29$ | 37.06 | $36 \cdot 82$ |
| 39 | 38.76 | $38 \cdot 52$ | $38 \cdot 28$ | $38 \cdot 04$ | 37.80 |
| 40 | 39.77 | 39.54 | $39^{\cdot} 3^{2}$ | 39.09 | 38.86 |
| 41 | $40 \cdot 77$ | $40 \cdot 54$ | $40 \cdot 30$ | $40 \cdot 07$ | 39.84 |
| 42 | 4177 | 41.54 | 41.31 | 41.08 | $40 \cdot 85$ |
| 43 | $42 \cdot 77$ | $42 \cdot 54$ | $42 \cdot 30$ | 42.07 | $41 \cdot 84$ |
| 44 | 4377 | $43 \cdot 54$ | $43 \cdot 31$ | 43.08 | $42 \cdot 85$ |
| 45 | $44 \cdot 77$ | 44.54 | $44^{\circ} 31$ | 44.08 | $43 \cdot 85$ |
| 46 | $45 \cdot 77$ | $45 \cdot 54$ | $45 \cdot 32$ | $45 \cdot 09$ | 44.86 |
| 47 | $46 \cdot 78$ | $46 \cdot 55$ | $46 \cdot 33$ | $46 \cdot 10$ | $45 \cdot 88$ |
| 48 | $47 \cdot 77$ | $47 \cdot 55$ | $47 \cdot 32$ | $47 \cdot 10$ | $46 \cdot 87$ |
| 49 | $48 \cdot 77$ | $48 \cdot 55$ | $48 \cdot 32$ | $48 \cdot 10$ | 47.87 |
| 50 | $49 \cdot 77$ | $49 \cdot 54$ | $49 \cdot 32$ | 49.09 | 48.86 |

$61^{\circ}-65^{\circ}$
COMMERCIAL VALUE.

|  | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 50.78 | 50.56 | 50.34 | $50 \cdot 12$ | 49.90 |
| 52 | 51.78 | 51.56 | 5134 | $51 \cdot 12$ | 50.90 |
| 53 | 52.78 | 52.56 | 52.33 | 52.11 | 51.89 |
| 54 | $53 \cdot 78$ | 53.56 | 53.34 | $53 \cdot 12$ | 52.90 |
| 55 | 54.78 | 54.56 | 54.33 | $54 \cdot 11$ | $53 \cdot 89$ |
| 56 | $55 \cdot 78$ | $55 \cdot 56$ | 55.34 | $55 \cdot 12$ | 54.90 |
| 57 | $56 \cdot 78$ | $56 \cdot 56$ | $56 \cdot 34$ | $56 \cdot 12$ | 55.90 |
| 58 | 57.78 | 57.56 | $57 \cdot 34$ | $57 \cdot 12$ | 56.90 |
| 59 | $58 \cdot 78$ | 58.56 | $58 \cdot 35$ | $58 \cdot 10$ | 57.92 |
| 60 | 59.78 | 59.56 | 59.35 | $59 \cdot 13$ | 58.91 |
| 61 | $60 \cdot 78$ | $60 \cdot 56$ | $60 \cdot 35$ | $60 \cdot 13$ | 59.91 |
| 62 | $61 \cdot 78$ | 61.56 | $61 \cdot 35$ | $61 \cdot 13$ | 60.91 |
| 63 | $62 \cdot 78$ | 62.56 | $62 \cdot 35$ | $62 \cdot 13$ | $61 \cdot 91$ |
| 64 | 63.78 | 63.56 | 63.35 | $63 \cdot 13$ | $62 \cdot 91$ |
| 65 | 64.78 | 64.57 | 64.35 | $64 \cdot 14$ | $63 \cdot 92$ |
| 66 | $65 \cdot 78$ | $65 \cdot 57$ | $65 \cdot 35$ | $65 \cdot 14$ | 64.92 |
| 67 | $66 \cdot 78$ | $66 \cdot 57$ | $66 \cdot 35$ | $66 \cdot 14$ | $65 \cdot 92$ |
| 68 | $67 \cdot 78$ | 67.57 | $67 \cdot 35$ | $67 \cdot 13$ | $66 \cdot 91$ |
| 69 | 68.79 | 68.57 | $68 \cdot 36$ | $68 \cdot 14$ | 67.93 |
| 70 | $69 \cdot 79$ | 69.57 | $69 \cdot 36$ | $69 \cdot 14$ | 68.93 |
| 71 | 70.79 | $70 \cdot 58$ | $70 \cdot 36$ | $70 \cdot 15$ | 69.94 |
| 72 | 71.79 | 71.58 | 71.36 | 71.15 | $70 \cdot 94$ |
| 73 | $72 \cdot 79$ | 72.58 | $72 \cdot 36$ | 72.15 | 7194 |
| 74 | 73.79 | 73.58 | $73 \cdot 37$ | $73 \cdot 16$ | 72.95 |
| 75 | $74 \cdot 79$ | 74.58 | $74 \cdot 37$ | $74 \cdot 16$ | 73.95 |

$61^{\sim}-65^{\circ}$
COMMERCIAL VALUE.

| \|eig ig | $61^{\circ}$ | $62^{\circ}$ | $63^{\circ}$ | $64^{\circ}$ | $65^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $75 \cdot 79$ | $75 \cdot 58$ | $75 \cdot 38$ | 75.17 | 74.96 |
| 77 | $78 \cdot 79$ | $76 \cdot 58$ | $76 \cdot 37$ | $76 \cdot 16$ | $75 \cdot 95$ |
| 78 | $77 \cdot 79$ | $77 \cdot 59$ | $77 \cdot 38$ | $77 \cdot 18$ | $76 \cdot 97$ |
| 79 | 78.79 | $78 \cdot 59$ | $78 \cdot 38$ | $78 \cdot 18$ | 77.97 |
| 80 | $79 \cdot 79$ | 79.58 | 79.38 | $79 \cdot 17$ | $78 \cdot 96$ |
| 81 | 80.80 | $80 \cdot 59$ | $80 \cdot 39$ | 80.18 | 79.98 |
| 82 | 81.80 | 81.59 | $81 \cdot 39$ | 81.18 | 80.98 |
| 83 | 82.80 | $82 \cdot 59$ | 82.39 | $82 \cdot 18$ | $8 \mathrm{I} \cdot 98$ |
| 84 | $83 \cdot 80$ | 83.59 | 83.39 | $83 \cdot 18$ | 82.98 |
| 85 | 84.80 | 84.59 | 84.39 | $84 \cdot 18$ | 83.98 |
| 86 | $85 \cdot 80$ | $85 \cdot 61$ | $85 \cdot 4 \mathrm{I}$ | $85 \cdot 22$ | 85.02 |
| 87 | $86 \cdot 80$ | $86 \cdot 61$ | $86 \cdot 41$ | $86 \cdot 22$ | 86.02 |
| 88 | 87.80 | $87 \cdot 61$ | 87.41 | $87 \cdot 22$ | 87.02 |
| 89 | $88 \cdot 81$ | $88 \cdot 62$ | 88.43 | $88 \cdot 24$ | 88.05 |
| 90 | 89.81 | $89 \cdot 62$ | $89 \cdot 44$ | 89.25 | 89.06 |
| 91 | 90.81 | $90 \cdot 62$ | $90 \cdot 43$ | $90 \cdot 24$ | 90.05 |
| 92 | 91.81 | $91 \cdot 62$ | 91.43 | 91.24 | 91.05 |
| 93 | 92.82 | $92 \cdot 65$ | 92.47 | 92.30 | 92-12 |
| 94 | $93 \cdot 83$ | $93 \cdot 65$ | 93.48 | 93.30 | 93.13 |
| 95 | 94.83 | $94 \cdot 66$ | 94.49 | $64 \cdot 32$ | 94.15 |
| 96 | $95 \cdot 83$ | $95 \cdot 67$ | $95 \cdot 50$ | 95.34 |  |
| 97 | 96.84 | $96 \cdot 67$ | $96 \cdot 51$ | $96 \cdot 34$ | $96 \cdot 18$ |
| 98 | 97.84 | 97.67 | 97.51 | 97.34 | $97 \cdot 18$ |
| 99 | $98 \cdot 84$ | $98 \cdot 68$ | 98.52 | $98 \cdot 36$ | 98.20 |
| 100 | $99 \cdot 84$ | $99 \cdot 68$ | 99.53 | $99 \cdot 37$ | $99^{\circ} \mathrm{I}$ |

$66^{\circ}-70^{\circ}$
COMMERCIAL VALUE.

|  | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.75 | 0.71 | 0.68 | 0.64 | 0.61 |
| 2 | I. 69 | I. 65 | 1.60 | 1.56 | I:5 I |
| 3 | $2 \cdot 68$ | $2 \cdot 62$ | $2 \cdot 57$ | $2 \cdot 51$ | 2.46 |
| 4 | $3 \cdot 66$ | $3 \cdot 60$ | $3 \cdot 54$ | $3 \cdot 48$ | 3.42 |
| 5 | $4 \cdot 61$ | 455 | $4 \cdot 48$ | $4 \cdot 42$ | 435 |
| 6 | $5 \cdot 59$ | $5 \cdot 51$ | $5 \cdot 44$ | $5 \cdot 36$ | $5 \cdot 29$ |
| 7 | $6 \cdot 56$ | $6 \cdot 49$ | 6.41 | $6 \cdot 34$ | $6 \cdot 26$ |
| 8 | $7 \cdot 54$ | $7 \cdot 46$ | $7 \cdot 38$ | $7 \cdot 30$ | -22 |
| 9 | $8 \cdot 52$ | $8 \cdot 44$ | $8 \cdot 35$ | 8.27 | 8-18 |
| 10 | $9 \cdot 45$ | $9 \cdot 35$ | $9 \cdot 25$ | $9 \cdot 16$ | $9 \cdot 06$ |
| 11 | 10.42 | I 0.32 | 10.21 | 10.11 | 10.01 |
| 12 | I I 39 | 11.28 | II•I8 | 11.07 | 10.96 |
| 13 | 12.35 | $12 \cdot 24$ | $12 \cdot 12$ | 12.01 | -90 |
| 14 | 13.30 | I $3^{\prime} 18$ | 13.05 | 12.93 | 12.81 |
| 15 | 14.24 | $14^{\circ} 11$ | I 3.98 | 13.85 | 13.72 |
| 16 | $15 \cdot 20$ | $15^{\circ} 07$ | 14.93 | 14.80 | 14.66 |
| 17 | 16.16 | 16.02 | $15 \cdot 87$ | $15 \cdot 73$ | 15.59 |
| 18 | I $7 \cdot 11$ | $16 \cdot 96$ | 16.80 | 16.65 | 16.50 |
| 19 | 18.04 | 17.88 | $17 \cdot 72$ | 17.56 | 17.40 |
| 20 | I $8 \cdot 97$ | 18.80 | 18.64 | 18.47 | $8 \cdot 30$ |
| 21 | 19.91 | $19 \cdot 73$ | 19.56 | $19 \cdot 38$ | 19.20 |
| 22 | $20 \cdot 85$ | 20.66 | 20.47 | 20.28 | 20.09 |
| 23 | 21.81 | 21.62 | 21.42 | 2 I. 23 | 21.04 |
| 24 | $22 \cdot 79$ | 22.60 | 22.40 | 22.21 | 22.02 |
| 25 | $23 \cdot 77$ | 23.58 | $23 \cdot 38$ | $23 \cdot 19$ | 22.99 |

$66^{\circ}-70^{\circ}$
COMMERCIAL VALUE.

| $\mid$ | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 24.74 | 24.53 | 24.33 | 24.12 | 23.92 |
| 27 | 25.70 | 25.50 | $25 \cdot 29$ | 25.09 | 24.89 |
| 28 | 26.69 | $26 \cdot 49$ | $26 \cdot 28$ | $26 \cdot 08$ | 25.87 |
| 29 | 27.66 | $27 \cdot 45$ | 27.24 | 27.03 | 26.82 |
| 30 | $28 \cdot 64$ | 28.43 | $28 \cdot 23$ | 28.02 | 27.81 |
| 31 | $29 \cdot 66$ | 29.44 | 29.23 | $29^{\circ} \mathrm{O}$ | $28 \cdot 80$ |
| 32 | $30 \cdot 62$ | 30.41 | $30 \cdot 20$ | 29.99 | 29.78 |
| 33 | 31.63 | $3 \mathrm{I} \cdot 4^{2}$ | $31 \cdot 20$ | $30 \cdot 99$ | 30.77 |
| 34 | $32 \cdot 62$ | 32.41 | 32-19 | 31.98 | 31.76 |
| 35 | $33 \cdot 62$ | 33.40 | $33 \cdot 19$ | $32 \cdot 97$ | $32 \cdot 76$ |
| 36 | 34.63 | 34.41 | 34*19 | 33.97 | 33.75 |
| 37 | 35.59 | $35 \cdot 37$ | $35 \cdot 16$ | 34.94 | 34.72 |
| 38 | $36 \cdot 60$ | $36 \cdot 37$ | $36 \cdot 15$ | $35^{\circ} 92$ | $35 \cdot 70$ |
| 39 | 37.58 | $37 \cdot 37$ | $37 \cdot 15$ | $36 \cdot 94$ | $36 \cdot 72$ |
| 40 | $38 \cdot 64$ | $38 \cdot{ }^{2}$ | $3^{8 \cdot 21}$ | 37.99 | $37 \cdot 77$ |
| 41 | $39 \cdot 62$ | $39^{\circ}{ }^{11}$ | $39^{\circ} 19$ | $38 \cdot 98$ | $38 \cdot 76$ |
| 42 | $40 \cdot 63$ | $40 \cdot 41$ | $40 \cdot 20$ | 39.98 | $39 \cdot 76$ |
| 43 | $41 \cdot 62$ | 41.41 | 41-19 | $40 \cdot 98$ | $40 \cdot 76$ |
| 44 | $42 \cdot 63$ | $42 \cdot 41$ | $42 \cdot 20$ | 41.98 | $41 \cdot 76$ |
| 45 | $43 \cdot 63$ | $43 \cdot 4 \mathrm{I}$ | $43 \cdot 20$ | $42 \cdot 98$ | $42 \cdot 76$ |
| 46 | $44 \cdot 65$ | 44.43 | $44 \cdot 22$ | 44.00 | $43 \cdot 79$ |
| 47 | $45 \cdot 66$ | 45.44 | $45^{\cdot 23}$ | $45^{\circ} \mathrm{O}$ | 44.79 |
| 48 | $46 \cdot 65$ | $46 \cdot 44$ | $46 \cdot 22$ | $46 \cdot 01$ | $45 \cdot 79$ |
| 49 | $47 \cdot 65$ | $47 \cdot 43$ | $47 \cdot 22$ | 47.00 | $46 \cdot 78$ |
| 50 | $48 \cdot 65$ | $48 \cdot 44$ | $48 \cdot 23$ | 48.02 | $47 \cdot 8 \mathrm{I}$ |

$66^{\circ}-70^{\circ}$
COMMERCIAL VALUE.

| 気宫 | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $49 \cdot 69$ | $49 \cdot 48$ | $49 \cdot 26$ | 49.05 | $48 \cdot 84$ |
| 52 | 50.68 | 50.47 | 50.25 | 50.04 | $49 \cdot 82$ |
| 53 | 51.68 | 51.46 | 51.25 | 51.03 | 50.82 |
| 54 | $52 \cdot 68$ | 52.47 | 52.25 | 52.04 | $5 \mathrm{I} \cdot 82$ |
| 55 | 53.68 | 53.47 | 53.25 | 53.04 | 52.83 |
| 56 | 54.69 | 54.47 | 54.26 | 54.04 | 53.83 |
| 57 | 55.69 | 55.48 | $55 \cdot 26$ | $55 \cdot 05$ | 54.84 |
| 58 | $56 \cdot 69$ | $56 \cdot 48$ | 56.27 | 56.06 | 55.85 |
| 59 | 57.71 | 57.50 | 57.28 | 57.07 | 56.86 |
| 60 | $58 \cdot 70$ | $58 \cdot 49$ | $58 \cdot 28$ | . 58.07 | 57.86 |
| 61 | 59.70 | 59.49 | 59.27 | 59.06 | 58.85 |
| 62 | $60 \cdot 69$ | $60 \cdot 48$ | $60 \cdot 26$ | 60.05 | 59.83 |
| 63 | $61 \cdot 70$ | $61 \cdot 49$ | $61 \cdot 27$ | 61.06 | 60.85 |
| 64 | $62 \cdot 70$ | 62.49 | $62 \cdot 27$ | $62 \cdot 06$ | 6I.85 |
| 65 | 63.71 | 63.50 | $63 \cdot 30$ | 63.09 | $62 \cdot 88$ |
| 66 | 64.71 | 64.50 | $64 \cdot 30$ | 64.09 | 63.88 |
| 67 | $65 \cdot 71$ | 65.50 | 65.28 | 65.07 | 64.86 |
| 68 | $66 \cdot 70$ | 66.50 | $66 \cdot 29$ | 66.09 | 65.88 |
| 69 | $67 \cdot 72$ | 67.52 | $67 \cdot 31$ | $67 \cdot 11$ | 66.90 |
| 70 | $68 \cdot 72$ | 68.51 | $68 \cdot 31$ | $68 \cdot 10$ | $67 \cdot 89$ |
| 71 | 69.73 | 69.52 | $69 \cdot 31$ | $69 \cdot 10$ | 68.89 |
| 72 | 70.73 | $70 \cdot 52$ | 70.31 | $70 \cdot 10$ | 69.89 |
| 73 | 71.73 | 71.53 | 7132 | $71 \cdot 12$ | 70.91 |
| 74 | $72 \cdot 74$ | 72.53 | $72 \cdot 33$ | $72 \cdot 12$ | 71.91 |
| 75 | $73 \cdot 74$ | 73.54 | 73.33 | $73 \cdot 13$ | $72 \cdot 92$ |

COMMERCIAL VALUE.

|  | $66^{\circ}$ | $67^{\circ}$ | $68^{\circ}$ | $69^{\circ}$ | $70^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 74.75 | 74.54 | 74.34 | $74^{11} 3$ | 73.92 |
| 77 | $75 \cdot 75$ | 75.55 | $75 \cdot 34$ | $75 \cdot 14$ | 74.94 |
| 78 | $76 \cdot 77$ | $76 \cdot 56$ | $76 \cdot 36$ | $76 \cdot 15$ | 75.95 |
| 79 | $77 \cdot 77$ | $77 \cdot 56$ | $77 \cdot 36$ | $77 \cdot 15$ | $76 \cdot 95$ |
| 80 | $78 \cdot 76$ | $78 \cdot 56$ | $78 \cdot 36$ | $78 \cdot 16$ | $77 \cdot 96$ |
| 81 | $79 \cdot 78$ | 79.58 | 79.37 | $79^{\circ} 17$ | $78 \cdot 97$ |
| 82 | 80.78 | 80.58 | $80 \cdot 38$ | $80 \cdot 18$ | $79 \cdot 98$ |
| 83 | 81.78 | 81.58 | 81.39 | 8I•19 | 80.99 |
| 84 | $82 \cdot 78$ | $82 \cdot 58$ | $82 \cdot 39$ | $82 \cdot 19$ | 81.99 |
| 85 | 83.78 | 83.59 | $83 \cdot 39$ | $83 \cdot 20$ | $83 \cdot 00$ |
| 86 | 84.83 | 84.63 | 84.44 | 84.24 | 84.05 |
| 87 | 85.83 | $85 \cdot 64$ | 85.45 | $85 \cdot 26$ | 85.07 |
| 88 | 86.83 | $86 \cdot 64$ | $86 \cdot 46$ | $86 \cdot 27$ | $86 \cdot 08$ |
| 89 | 87.86 | 87.67 | 87.49 | $87 \cdot 30$ | $87 \cdot 11$ |
| 90 | 88.88 | 88.69 | $88 \cdot 51$ | $88 \cdot 32$ |  |
|  | 89.87 | 89.68 | 89.50 | $89 \cdot 31$ | 89-1 3 |
| 92 | 90.87 | $90 \cdot 69$ | 90.51 | 90.33 | 90.15 |
| 93 | 91.94 | 91.77 | 91.59 | 91.42 |  |
| 94 | 92.96 | 92-79 | $92 \cdot 62$ | 92.45 | 92.28 |
| 95 | 93.98 | 93.81 | $93 \cdot 65$ | $93 \cdot 48$ | $93 \cdot 31$ |
| 96 | $95^{\circ} 00$ | 94.83 | 94.66 | 94.49 | 94.32 |
| 97 | 96.02 | $95 \cdot 85$ | $95 \cdot 69$ | $95 \cdot 52$ | $95 \cdot 36$ |
| 98 | $97^{\circ} \mathrm{O}$ | $96 \cdot 86$ | $96 \cdot 71$ | 96.55 | $96 \cdot 39$ |
| 99 | $98 \cdot 04$ | $97 \cdot 88$ | 97.73 | 97.57 | 97.41 |
| 100 | $99 \cdot 06$ | 98.91 | $98 \cdot 76$ | $98 \cdot 61$ | $98 \cdot{ }^{6}$ |

$71^{\circ}-75^{\circ}$

## COMMERCIAL VALUE．

| 第号家 | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.58 | 0.56 | $0 \cdot 53$ | 0.51 | 0.48 |
| 2 | 1.47 | 1．43 | I．38 | 1．34 | $1 \cdot 30$ |
| 3 | $2 \cdot 41$ | $2 \cdot 35$ | $2 \cdot 30$ | $2 \cdot 24$ | $2 \cdot 19$ |
| 4 | $3 \cdot 36$ | $3 \cdot 30$ | $3 \cdot 24$ | $3 \cdot 18$ | $3 \cdot 12$ |
| 5 | $4 \cdot 28$ | 4.21 | $4 \cdot 13$ | 4.06 | 3.99 |
| 6 | $5 \cdot 21$ | 5．14 | $5 \cdot 06$ | 4.99 | 4.91 |
| 7 | $6 \cdot 18$ | $6 \cdot 10$ | $6 \cdot 1$ | $5 \cdot 93$ | $5 \cdot 85$ |
| 8 | $7 \cdot 14$ | 7.05 | $6 \cdot 97$ | $6 \cdot 88$ | $6 \cdot 80$ |
| 9 | $8 \cdot 08$ | 7.99 | $7 \cdot 89$ | 7.80 | 7.70 |
| 10 | $8 \cdot 96$ | $8 \cdot 86$ | $8 \cdot 77$ | $8 \cdot 67$ | $8 \cdot 57$ |
| 11 | 9＊90 | $9 \cdot 80$ | $9 \cdot 69$ | $9 \cdot 59$ | 9.48 |
| 12 | 10.85 | 10.74 | 10.63 | 10.52 | 10.41 |
| 13 | 11.78 | I I 66 | 11.53 | 11．41 | II 29 |
| 14 | 12.68 | 12.55 | 12.42 | 12.29 | $12 \cdot 16$ |
| 15 | 13.59 | 13.46 | 13.33 | 13.20 | 13.07 |
| 16 | 14.52 | 14.38 | 14.24 | 14.10 | 13.96 |
| 17 | 15.44 | 15.29 | 15．15 | 15.00 | 14.85 |
| 18 | $16 \cdot 35$ | $16 \cdot 20$ | 16.04 | 15.89 | 15.74 |
| 19 | 17.24 | 17.08 | 16.92 | 16.76 | 16.60 |
| 20 | 18．13 | 17.96 | 17.80 | 17.63 | 17.46 |
| 21 | 19.02 | 18.84 | 18.66 | 18.48 | 18.30 |
| 22 | 19.90 | 19.72 | 19.53 | 19.35 | 19．16 |
| 23 | 20.86 | 20.67 | 20.49 | $20 \cdot 30$ | 20.12 |
| 24 | 21.83 | 21.64 | 21.46 | 21.27 | 21.08 |
| 25 | 22.80 | 22.61 | 22.42 | 22.23 | 22.04 |

COMMERCIAL VALUE.

| 훕ㅇํ | $71^{\circ}$ | 72 | 73 | 74 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 |  |  |  |  |  |
| 27 |  | 24 | 24.3 |  | 23.9 |
| 28 | 25.68 | 25. | 25. | 25 |  |
| 29 | 26.63 | 26.44 | 26.24 |  |  |
| 30 | 27.61 | 27.41 | 27.22 |  |  |
| 31 | 28.60 | 28.41 | 28.21 | 28.02 |  |
| 32 | 29.58 | $29 \cdot 3$ | 20 |  |  |
| 33 | $30 \cdot 5$ | 30 | $3{ }^{\circ}$ | 29.97 |  |
| 34 | 31.5 | 31 | 31 | 30.97 |  |
| 35 | 32.56 | 32 | 32 | 31.94 |  |
| 36 | $33^{\circ}$ | 33 | 33 |  |  |
| 37 |  | 34 |  |  |  |
| 38 |  |  |  |  |  |
| 40 | 37 | 37 | 37 |  |  |
|  | 38.5 | 38.35 | $38 \cdot 1$ |  |  |
| 42 | - | 39.35 | 39.14 | 38.94 |  |
| 43 | $40 \cdot 5$ | $40 \cdot 34$ | $40 \cdot 14$ | 39.93 |  |
| 44 | 4 | $41 \cdot 34$ | 41.14 | 40 | $40 \cdot 7$ |
| 45 | 42. | $42 \cdot 36$ |  | $4{ }^{1}$ |  |
|  |  | 43 |  |  |  |
| 47 | 44.58 | 44 | $44 \cdot 17$ | 436 | $43 \cdot 7$ |
| 48 |  |  |  | 44.97 | $44 \cdot 76$ |
| 49 | 46 | $46 \cdot 38$ | $46 \cdot 17$ |  | 46 |
| 50 | 47 | 47 | $47 \cdot 20$ |  | 46 |

$$
71^{\circ}-75^{\circ}
$$

COMMERCIAL VALUE.

|  | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $48 \cdot 63$ | $48 \cdot 43$ | $48 \cdot 22$ | $48 \cdot 02$ | $47 \cdot 81$ |
| 52 | $49 \cdot 62$ | $49^{\circ} 41$ | $49^{\cdot 21}$ | $49 \cdot 00$ | $48 \cdot 80$ |
| 53 | $50 \cdot 61$ | 50.41 | $50 \cdot 20$ | 50.00 | $49 \cdot 79$ |
| 54 | $51 \cdot 61$ | 5 I 4 I | $51 \cdot 20$ | 51.00 | 50.79 |
| 55 | $52 \cdot 62$ | $52 \cdot 42$ | 52.21 | $52 \cdot 01$ | 51.80 |
| 56 | 53.62 | 53.42 | 53.21 | 53.01 | 52.80 |
| 57 | 54.64 | 54.43 | $54 \cdot 23$ | 54.02 | 53.82 |
| 58 | 55.65 | 55.45 | $55 \cdot 24$ | 55.04 | 54.84 |
| 59 | 56.65 | $56 \cdot 45$ | $56 \cdot 24$ | $56 \cdot 04$ | 55.83 |
| 60 | $57 \cdot 65$ | $57 \cdot 44$ | $57 \cdot 24$ | 57.03 | 56.82 |
| 61 | $58 \cdot 64$ | 58.43 | $58 \cdot 23$ | $58 \cdot 02$ | $57 \cdot 81$ |
| 62 | $59 \cdot 62$ | 59.42 | $59 \cdot 21$ | 59.01 | $58 \cdot 80$ |
| 63 | $60 \cdot 64$ | $60 \cdot 44$ | $60 \cdot 23$ | 60.03 | 59.82 |
| 64 | $6 \mathrm{I} \cdot 65$ | $6 \mathrm{I} \cdot 45$ | $61 \cdot 24$ | $6 \mathrm{I} \cdot 04$ | $60 \cdot 84$ |
| 65 | $62 \cdot 67$ | 62.47 | 62.26 | 62.06 | 61.85 |
| 66 | $63 \cdot 67$ | 63.47 . | $63 \cdot 26$ | 63.06 | 62.85 |
| 67 | 64.66 | 64.46 | $64 \cdot 26$ | 64.06 | $63 \cdot 86$ |
| 68 | 65.68 | 65.47 | $65 \cdot 27$ | $65 \cdot 06$ | 64.86 |
| 69 | $66 \cdot 70$ | $66 \cdot 50$ | $66 \cdot 29$ | 66.09 | 65.89 |
| 70 | $67 \cdot 69$ | $67 \cdot 48$ | $67 \cdot 28$ | 67.07 | $66 \cdot 87$ |
| 71 | 68.69 | $68 \cdot 48$ | $68 \cdot 28$ | 68.07 | .87 |
| 72 | $69 \cdot 69$ | 69.49 | $69 \cdot 28$ | 69.08 | $68 \cdot 88$ |
| 73 | $70 \cdot 71$ | $70 \cdot 51$ | $70 \cdot 30$ | $70 \cdot 10$ | 69.90 |
| 74 | 71.71 | 71.51 | $71 \cdot 30$ | $71 \cdot 10$ | $70 \cdot 90$ |
| 75 | $72 \cdot{ }^{2}$ | 72.52 | $72 \cdot 31$ | $72 \cdot 11$ | 71.91 |

COMMERCIAL VALUE.

| 皆哑 | $71^{\circ}$ | $72^{\circ}$ | $73^{\circ}$ | $74^{\circ}$ | $75^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 73.72 | 73.52 | 73.33 | $73 \cdot 13$ | 72.93 |
| 77 | 74.74 | 74.54 | 74.33 | 74.13 | 73.93 |
| 78 | 75.75 | 75.55 | $75 \cdot 36$ |  | 74.96 |
| 79 | $76 \cdot 75$ | 76.55 | ${ }^{76} \cdot 36$ | ${ }^{76 \cdot 16}$ |  |
| 80 | $77 \cdot 76$ | $77 \cdot 56$ | $77 \cdot 37$ | $77^{17}$ | $76 \cdot 97$ |
| 81 | 78.77 | $78 \cdot 58$ | $78 \cdot 38$ | $78 \cdot 19$ | 77.99 |
| 82 | 79.78 | 79.58 | 79.39 | 79.19 |  |
| 83 84 8 | 80.79 81.80 | $80 \cdot 60$ $8 \mathrm{I} \cdot 6 \mathrm{I}$ | $80 \cdot 40$ $8 \mathrm{I} \cdot 4 \mathrm{I}$ | $80 \cdot 21$ $8 \mathrm{l} \cdot 22$ | 80.01 81.03 |
| 85 | 82.81 | $82 \cdot 62$ | 82.44 | 82.25 | 82.06 |
| 86 | 83.86 | 83.67 | 83.48 | $83 \cdot 29$ | $83 \cdot 10$ |
| 87 | 84.88 | ${ }^{84} 469$ | 84.49 | 84.30 | $84 \cdot 11$ 8.15 |
| 88 | 85.89 | 85.71 | 85.52 | 85.34 | $85 \cdot 15$ |
| 89 | 86.93 | 86.74 | 86.56 | 86.37 | $86 \cdot 19$ |
| 90 | 87.95 | 87.77 | 87.58 | 87.40 | 87.21 |
| 91 | 88.94 | 88.76 | $88 \cdot 57$ | $88 \cdot 39$ | 88.20 |
| 92 | 89.98 | 89.81 | 89.63 | 89.46 | 89.29 |
| 93 | 91.07 | 90.90 | 90.73 | $90 \cdot 56$ | 90.39 |
| 94 | 92-11 | 91.94 | 91.78 | ${ }^{1} \cdot 61$ | 91•4 |
| 95 | $93 \cdot 14$ | 92.98 | $92 \cdot 81$ | $92 \cdot 65$ | 92.48 |
| 96 | $94 \cdot 16$ | $94 \cdot 00$ | $93 \cdot 84$ | $93 \cdot 68$ | 93.52 |
| 97 | $95 \cdot 20$ | 95.04 | 94.89 | 94.73 | 9457 |
| 98 | $96 \cdot 23$ | 96.07 | $95^{.92}$ | 95.76 | 95.60 |
| 99 | 978.26 | $97 \cdot 10$ | 96.95 | 96.79 |  |
| 100 | 98.31 | $98 \cdot 15$ | 98. | 97•84 | 97.66 |

$76^{\circ}-80^{\circ}$
COMMERCIAL VALUE.

| 戓: | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.46 | 0.44 | 0.43 | 0.41 | $0 \cdot 39$ |
| 2 | 1.26 | $1 \cdot 23$ | I-19 | 1.16 | 1-12 |
| 3 | $2 \cdot 14$ | 2.09 | 2.05 | 2.00 | I 95 |
| 4 | 3.06 | 3.00 | 2.93 | $2 \cdot 87$ | $2 \cdot 81$ |
| 5 | 3.92 | $3 \cdot 85$ | $3 \cdot 79$ | $3 \cdot 72$ | $3 \cdot 65$ |
| 6 | $4 \cdot 83$ | 4.76 | $4 \cdot 68$ | $4 \cdot 61$ | 4.53 |
| 7 | $5 \cdot 77$ | $5 \cdot 69$ | $5 \cdot 60$ | $5 \cdot 52$ | $5 \cdot 44$ |
| 8 | $6 \cdot 71$ | $6 \cdot 62$ | $6 \cdot 54$ | $6 \cdot 45$ | $6 \cdot 36$ |
| 9 | $7 \cdot 60$ | $7 \cdot 50$ | 7.41 | $7 \cdot 31$ | $7 \cdot 21$ |
| 10 | $8 \cdot 47$ | $8 \cdot 36$ | $8 \cdot 26$ | $8 \cdot 15$ | 8.05 |
| 11 | $9 \cdot 37$ | $9 \cdot 26$ | $9 \cdot 16$ | 9.05 | $8 \cdot 94$ |
| 12 | 10.29 | 10.18 | 10.06 | $9 \cdot 95$ | $9 \cdot 83$ |
| 13 | II 1 17 | 11.04 | 10.92 | 10.79 | 10.67 |
| 14 | 12.03 | 11.91 | 11.78 | 11.66 | I1.53 |
| 15 | 12.93 | 12.80 | 12.66 | 12.53 | 12.39 |
| 16 | 13.82 | 13.68 | 13.53 | 13.39 | 13.25 |
| 17 | 14.71 | 14.56 | 14.42 | 14.27 | 14.13 |
| 18 | 15.59 | 15.44 | 15.29 | 15.14 | 14.99 |
| 19 | 16.44 | 16.29 | $16 \cdot 13$ | 15.98 | 15.82 |
| 20 | 17.29 | $17 \cdot 13$ | 16.96 | 16.80 | 16.63 |
| 21 | $18 \cdot 13$ | 17.96 | 17.78 | 17.61 |  |
| 22 | 18.99 | 18.82 | 18.64 | 18.47 | $18 \cdot 30$ |
| 23 | 19.94 | 19.76 | 19.59 | 19.41 | $19 \cdot 23$ |
| 24 | 20.90 | 20.72 | $20 \cdot 54$ | 20.36 | $20 \cdot 18$ |
| 25 | 2 I.86 | 21.69 | 2 I 5 I | 21.34 | $21 \cdot 16$ |

COMMERCIAL VALUE．

| 苞宫家 | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $22 \cdot 80$ | 22.62 | 22.44 | 22.26 | 22.08 |
| 27 | 23.74 | 23.56 | 23.38 | 23.20 | 23.02 |
| 28 | 24.72 | 24.54 | 24.35 | 24.17 | 23.99 |
| 29 | 25.68 | 25.49 | 25.31 | 25.12 | 24.94 |
| 30 | $26 \cdot 64$ | 26.46 | 26.28 | $26 \cdot 10$ | 25.92 |
| 31 | $27 \cdot 64$ | $27 \cdot 46$ | $27^{27}$ | 27.09 | 26.91 |
| 32 | $28 \cdot 61$ | $28 \cdot 42$ | $28 \cdot 24$ | 28.05 | 27.87 |
| 33 | 29.59 | 29.40 | 29.22 | 29.03 | 28.85 |
| 34 | $30 \cdot 58$ | 30．39 | 30.21 | 30.02 | 29.83 |
| 35 | $31 \cdot 55$ | 31－36 | $31 \cdot 17$ | 30.98 | $30 \cdot 79$ |
| 36 | 32.55 | $32 \cdot 35$ | $32 \cdot 16$ | 31.96 | 3177 |
| 37 | 33.49 | $33 \cdot 30$ | $33 \cdot 11$ | $32 \cdot 92$ | $32 \cdot 73$ |
| 38 | 34.48 | 34.28 | 34.09 | $33 \cdot 89$ | $33 \cdot 70$ |
| 39 | 35.51 | $35 \cdot 32$ | $35^{\prime} 12$ | 34.93 | 34.74 |
| 40 | 36.55 | $36 \cdot 36$ | $36 \cdot 16$ | 35.97 | $35 \cdot 78$ |
| 41 | 37.54 | 37.35 | $37 \cdot 15$ | $36 \cdot 96$ | $36 \cdot 76$ |
| 42 | 38.53 | $38 \cdot 34$ | $38 \cdot 14$ | 37.95 | $37 \cdot 75$ |
| 43 | $39 \cdot{ }^{2}$ | $39^{\circ} 33$ | $39 \cdot 13$ | $38 \cdot 94$ | $38 \cdot 74$ |
| 44 | $40 \cdot 52$ | $40 \cdot 33$ | $40 \cdot 13$ | $39^{\circ} 94$ | $39^{\circ} 74$ |
| 45 | 41.55 | $41 \cdot 35$ | 41．16 | $40 \cdot 96$ | $40 \cdot 76$ |
| 46 | $42 \cdot 56$ | $42 \cdot 36$ | $42 \cdot 16$ | 41.96 | $41 \cdot 76$ |
| 47 | $43 \cdot 56$ | $43 \cdot 36$ | $43 \cdot 17$ | $42 \cdot 97$ | $42 \cdot 78$ |
| 48 | 44.56 | 44.37 | $44 \cdot 17$ | $43 \cdot 98$ | $43 \cdot 78$ |
| 49 | $45 \cdot 57$ | $45 \cdot 38$ | $45 \cdot 18$ | 44.99 | 44.79 |
| 50 | $46 \cdot 59$ | $46 \cdot 39$ | $46 \cdot 20$ | $46 \cdot 00$ | $45 \cdot 80$ |

$76^{\circ}-80^{\circ}$
COMMERCIAL VALUE.

|  | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $47 \cdot 61$ | $47 *{ }^{\circ}$ | $47 \cdot 22$ | 47.03 | $46 \cdot 83$ |
| 52 | $48 \cdot 60$ | $48 \cdot 40$ | $48 \cdot 20$ | $48 \cdot 00$ | 47.80 |
| 53 | 49.59 | $49 \cdot 39$ | $49 \cdot 20$ | $49 \cdot 00$ | $48 \cdot 80$ |
| 54 | 50.59 | 50.39 | 50.19 | $49 \cdot 99$ | $49 \cdot 79$ |
| 55 | 51.60 | 51.40 | 51.19 | $50 \cdot 99$ | 50.79 |
| 56 | $52 \cdot 60$ | 52.41 | 52.2I | 52.02 | 51.82 |
| 57 | 53.62 | 53.42 | 53.22 | 53.02 | 52.82 |
| 58 | $5+64$ | 54.43 | 54.23 | 54.02 | 53.82 |
| 59 | 55.63 | 55.43 | $55^{\cdot 22}$ | 55.02 | 54.82 |
| 60 | 56.62 | 56.42 | $56 \cdot 22$ | 56.02 | 55.82 |
| 61 | $57 \cdot 61$ | 57.41 | 57.20 | 57.00 | 56.80 |
| 62 | $58 \cdot 60$ | 58.40 | $58 \cdot 19$ | 57.99 | 57.79 |
| 63 | $59 \cdot 62$ | 59.42 | $59 \cdot 22$ | 59.02 | 58.82 |
| 64 | $60 \cdot 64$ | $60 \cdot 44$ | $60 \cdot 24$ | 60.04 | 59.84 |
| 65 | $6 \mathrm{I} \cdot 65$ | 61.45 | 61.26 | 61.06 | $60 \cdot 86$ |
| 66 | $62 \cdot 65$ | 62.45 | $62 \cdot 26$ | 62.06 | 61.86 |
| 67 | 63.66 | 63.46 | $63 \cdot 26$ | 63.06 | 62.86 |
| 68 | 64.66 | 64.47 | $64 \cdot 27$ | 64.08 | 63.88 |
| 69 | $65 \cdot 69$ | 65.49 | $65 \cdot 28$ | $65 \cdot 08$ | 64.88 |
| 70 | $66 \cdot 67$ | $66 \cdot 47$ | $66 \cdot 27$ | 66.07 | $65 \cdot 87$ |
| 71 | $67 \cdot 67$ | 67.47 | $67 \cdot 28$ | 67.08 | 66.88 |
| 72 | $68 \cdot 68$ | 68.48 | $68 \cdot 29$ | $68 \cdot 09$ | 67.89 |
| 73 | $69 \cdot 70$ | 69.50 | $69 \cdot 30$ | $69 \cdot 10$ | $68 \cdot 90$ |
| 74 | $70 \cdot 70$ | $70 \cdot 50$ | $70 \cdot 31$ | 70.11 | 69.91 |
| 75 | 71.71 | 71.51 | 71.30 | $71 \cdot 10$ | $70 \cdot 92$ |

$-80^{\circ}$
COMMERCIAL VALUE.

|  | $76^{\circ}$ | $77^{\circ}$ | $78^{\circ}$ | $79^{\circ}$ | $80^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $72 \cdot 73$ | 72.53 | $72 \cdot 34$ | $72 \cdot 14$ | 71.94 |
| 77 | $73 \cdot 73$ | 73.54 | $73 \cdot 34$ | $73 \cdot 15$ | $72 \cdot 95$ |
| 78 | 74.76 | 74.57 | 74.37 | $74 \cdot 18$ | 73.98 |
| 79 | $75 \cdot 77$ | 75.57 | $75 \cdot 38$ | $75 \cdot 18$ | 74.99 |
| 8 | $76 \cdot 78$ | 76.58 | $76 \cdot 39$ |  | $76 \cdot 00$ |
| 81 | $77 \cdot 80$ | 77.61 | $77 \cdot 4 \mathrm{I}$ | $77 \cdot 22$ | 3 |
| 82 | $78 \cdot 80$ | $78 \cdot 61$ | $78 \cdot 4 \mathrm{I}$ | $78 \cdot 22$ | 78.03 |
| 83 | 79.82 | $79 \cdot 63$ | 79.43 |  | 79.05 |
| 8 | 80.84 | $80 \cdot 65$ | 80.47 | 80.28 | 80.09 |
| 85 | $8 \mathrm{I} \cdot 87$ | $8 \mathrm{I} \cdot 69$ | 81.50 | $8 \mathrm{I} \cdot 32$ | 8I•I3 |
| 86 | $82 \cdot 91$ | $82 \cdot 73$ | 82.54 | $82 \cdot 36$ | $82 \cdot 17$ |
| 87 | 83.93 | 83.75 | 83.56 | $83 \cdot 38$ | $83 \cdot 20$ |
| 88 | 84.97 | 84.79 | 84.61 |  | 84.25 |
| 89 | 86.01 | 85.83 | $85 \cdot 65$ | $85 \cdot 47$ |  |
| 90 | 87.03 | 86.85 | $86 \cdot 66$ | $86 \cdot 48$ | $86 \cdot 30$ |
| 1 | 88.03 | 87.86 | $87 \cdot 69$ |  |  |
| 92 | 89.12 | 88.95 | $88 \cdot 78$ | 88.61 | 88.44 |
| 93 | $90 \cdot 22$ | $90 \cdot 05$ | 89.89 | 89.72 | 89.55 |
| 94 | 91.27 | 91-11 | 90.94 | $90 \cdot 78$ | $90 \cdot 61$ |
| 95 | $9^{2 \cdot} 3^{2}$ | $92 \cdot 16$ | 91.99 | $91 \cdot 83$ | $91 \cdot 67$ |
| $96$ | $93 \cdot 36$ | 93.20 | 93.05 | $92 \cdot 89$ | $92 \cdot 73$ |
| 97 | 94.41 | 94.25 | $94 \cdot 10$ | 93.94 | 93.78 |
| 98 | 95.43 | 95.28 | $95 \cdot 13$ | 94.97 | 94.79 |
| 99 100 | $96 \cdot 46$ | 96.31 | $96 \cdot 15$ | $96 \cdot 00$ | $95 \cdot 84$ |
| 100 | 97.51 | 97•35 | 97:20 | $97 \cdot 04$ | $96 \cdot 89$ |

$$
81^{\circ}-85^{\circ}
$$

COMMERCIAL VALUE.

|  | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $0 \cdot 38$ | 0.36 | $0 \cdot 35$ | $0 \cdot 33$ | $0 \cdot 32$ |
| 2 | 1.09 | 1.06 | 1.02 | $0 \cdot 99$ | 0.96 |
| 3 | 1.91 | I.86 | I. 82 | 1.77 | $1 \cdot 73$ |
| 4 | $2 \cdot 75$ | $2 \cdot 69$ | $2 \cdot 64$ | $2 \cdot 58$ | $2 \cdot 52$ |
| 5 | $3 \cdot 58$ | $3 \cdot 52$ | $3 \cdot 45$ | $3 \cdot 39$ | $3 \cdot 32$ |
| 6 | $4 \cdot 46$ | $4 \cdot 39$ | 4.31 | $4 \cdot 24$ | $4 \cdot 17$ |
| 7 | $5 \cdot 36$ | $5 \cdot 28$ | $5 \cdot 21$ | $5 \cdot 13$ | $5 \cdot 05$ |
| 8 | $6 \cdot 27$ | $6 \cdot 18$ | $6 \cdot 08$ | 5.99 | 5.90 |
| 9 | 7111 | 7.01 | $6 \cdot 92$ | 6.82 | $6 \cdot 72$ |
| 10 | $7 \cdot 95$ | $7 \cdot 85$ | $7 \cdot 75$ | $7 \cdot 65$ | $7 \cdot 55$ |
| 11 | $8 \cdot 83$ | $8 \cdot 73$ | $8 \cdot 62$ | $8 \cdot 52$ | $8 \cdot 41$ |
| 12 | $9 \cdot 71$ | $9 \cdot 60$ | $9 \cdot 48$ | 9:37 | $9 \cdot 25$ |
| 13 | 10.55 | 10.43 | 10.31 | 10.19 | 10.07 |
| 14 | 11.40 | $11 \cdot 27$ | II 15 | II.02 | 10.89 |
| 15 | $12 \cdot 26$ | I2.12 | 11.99 | 11.85 | 11.72 |
| 16 | 13.11 | 12.98 | 12.84 | 12.71 | 12.57 |
| 17 | 13.99 | I 3.84 | 13.70 | 13.55 | 13.41 |
| 18 | 14.84 | 14.70 | 14.55 | 14.4 I | 14.26 |
| 19 | 15.67 | 15.51 | $15 \cdot 36$ | 15.20 | 15.05 |
| 20 | 16.47 | $16 \cdot 31$ | $16 \cdot 15$ | 15.99 | 15.83 |
| 21 | 17.28 | $17 \times 12$ | 16.95 | 16.79 | 16.63 |
| 22 | $18 \cdot 13$ | 17.96 | $17 \cdot 79$ | 17.62 | 17.45 |
| 23 | 19.06 | 18.99 | $18 \cdot 73$ | 18.56 | 18.39 |
| 24 | 20.01 | 19.85 | 19.68 | 19.52 | $19 \cdot 35$ |
| 25 | 20.99 | 20.82 | 20.65 | $20 \cdot 48$ | 20.31 |

$81^{\circ}-85^{\circ}$
COMMERCIAL VALUE．

| 完宫品 | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 21.91 | $21 \cdot 74$ | 21.58 | 21.41 | 2 |
| 27 | $22 \cdot 85$ | 22.68 | 22.51 | $22 \cdot 34$ | $22 \cdot 17$ |
| 28 | 23.82 | 23.65 | 23.47 | 23.30 | $23 \cdot 13$ |
| 29 | 24.77 | 24.60 | 24.42 | 24.25 | 24.08 |
| 30 | $25 \cdot 75$ | 25.58 | $25 \cdot 40$ | $25 \cdot 23$ | 25.06 |
| 31 | $26 \cdot 74$ | $26 \cdot 56$ | $26 \cdot 39$ | $26 \cdot 21$ | 26.04 |
| 32 | 27.70 | $27 \cdot 52$ | $27 \cdot 35$ | $27 \cdot 17$ | 27.00 |
| 33 | $28 \cdot 67$ | $28 \cdot 50$ | $28 \cdot 32$ | $28 \cdot 15$ | 27.97 |
| 34 | 29.65 | 29.47 | 29.29 | 29.11 | $28 \cdot 93$ |
| 35 | $30 \cdot 61$ | 30.43 | 30.26 | 30.08 | 29.90 |
| 36 | 31．59 | 31.41 | 31.24 | 31.06 | 30.88 |
| 37 | 32.55 | $32 \cdot 37$ | $32 \cdot 20$ | 32.02 | 31.84 |
| 38 | 33.52 | $33 \cdot 34$ | $33 \cdot 15$ | $32 \cdot 97$ | 32.79 |
| 39 | 34.56 | 34.37 | $34 \cdot 19$ | 34.00 | 33.82 |
| 40 | $35 \cdot 60$ | $35 \cdot 4 \mathrm{I}$ | $35 \cdot 23$ | $35 \cdot 04$ | 34.86 |
| 41 | $36 \cdot 58$ | $36 \cdot 39$ | $36 \cdot 21$ | $36 \cdot 02$ | 35.84 |
| 42 | $37 \cdot 57$ | $37 \cdot 38$ | $37 \cdot 20$ | 37.01 | $36 \cdot 83$ |
| 43 | $38 \cdot 55$ | $38 \cdot 36$ | $38 \cdot 18$ | 37.98 | $37 \cdot 80$ |
| 44 | 39.55 | $39 \cdot 36$ | $39^{\circ} \mathrm{I} 7$ | $38 \cdot 98$ | $38 \cdot 79$ |
| 45 | $40 \cdot 57$ | $40 \cdot 38$ | $40 \cdot 20$ | $40 \cdot 01$ | 39.82 |
| 46 | 41．57 | 41•39 | 41．20 | 41.02 | $40 \cdot 83$ |
| 47 | $42 \cdot 59$ | $42 \cdot 40$ | $42 \cdot 22$ | $42 \cdot 03$ | 41.84 |
| 48 | 43.59 | $43 \cdot 40$ | $43 \cdot 22$ | 43.03 | $42 \cdot 84$ |
| 49 | 44.60 | 44.41 | $44 \cdot 23$ | 44.04 |  |
| 50 | $45^{\circ} 61$ | $45 \cdot 43$ | $45 \cdot 24$ | $45^{\circ} 06$ | 44.87 |

$$
81^{\circ}-85^{\circ}
$$

, COMMERCIAL VALUE.

| 宫 | $81^{\circ}$ | $82^{\circ}$ | 83 | $84^{\circ}$ | 85 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 46 |  |  |  |  |
| 52 |  | 47 | $47 \cdot 23$ |  |  |
| 53 |  | 48 | 48.23 | 48.04 |  |
| 54 55 | 49.6 | 49.41 50.41 | 49. | $40^{\circ}$ |  |
| 55 |  | 50.41 | 50 |  |  |
| 56 57 | 51.63 52.63 | 51.43 52.44 | 51.2 52.2 | 51 |  |
| 58 | $53 \cdot 63$ | 53.4 | 53.24 | 53 |  |
| 59 | 54.63 | 54.4 | $54^{2}$ | 54 |  |
| 60 | 55 | 55 | 55.23 |  |  |
| 61 | 56.60 | $56 \cdot 4$ | $56 \cdot 2$ | 56.0 |  |
| 62 | 57.60 | 57.4 | 57.21 | 57 |  |
| $\begin{aligned} & 63 \\ & 64 \end{aligned}$ |  | 58.43 |  |  |  |
| 65 | 60.67 | 6 | 60 |  | 9.89 |
| 66 | ${ }^{6} \cdot 6$ | 61.4 | $6_{1} \cdot 28$ |  |  |
| 6 | 6 | 62 | $62 \cdot 28$ |  |  |
| 8 | 63. | 63.4 | 63.29 | 63. | 62.89 |
| 69 | 64 |  | 64.29 |  |  |
| 70 | 65 | 65. | 65 |  | 64.90 |
| 71 | ${ }^{66.69}$ | 66.5 | 66.30 |  |  |
| 72 | 67.70 | 67.5 | 67.31 | $68 \cdot$ | $66 \cdot 92$ |
| 73 | 68.71 | $68 \cdot 5$ | $68 \cdot 32$ | $68 \cdot 1$ |  |
| 74 | ${ }^{69} 7{ }^{2}$ | 69.52 | 69.33 |  | 68.94 |
| 75 | $70 \cdot 73$ | 70.54 | 70.35 | 70 |  |

$81^{\circ}-85^{\circ}$
COMMERCIAL VALUE.

| 気家 | $81^{\circ}$ | $82^{\circ}$ | $83^{\circ}$ | $84^{\circ}$ | $85^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 7175 | 71.56 | $71 \cdot 36$ | 71.17 | 70.98 |
| 77 | 72.76 | 72.57 | $72 \cdot 38$ | 72.19 | 72.00 |
| 78 | 73.79 | $73 \cdot 60$ | 73.40 | $73 \cdot 21$ | 73.02 |
| 79 | 74.80 | 74.61 | 74.41 | $74 \cdot 22$ | 74.03 |
| 80 | $75 \cdot 81$ | $75 \cdot 62$ | $75 \cdot 43$ | $75 \cdot 24$ | 75.05 |
| 81 | $76 \cdot 84$ | $76 \cdot 65$ | $76 \cdot 45$ | $76 \cdot 26$ | 76.07 |
| 82 | $77 \cdot 84$ | 77.65 | 77.47 | $77 \cdot 28$ | 77.09 |
| 83 | 78.87 | $78 \cdot 69$ | 78.50 | $78 \cdot 32$ | $78 \cdot 14$ |
| 84 | 79.91 | $79 \cdot 73$ | 79.54 | $79 \cdot 36$ | $79 \cdot 18$ |
| 85 | 80.95 | 80.76 | 80.58 | $80 \cdot 39$ | 80.21 |
| 86 | 81.99 | $8 \mathrm{I} \cdot 8 \mathrm{I}$ | $8 \mathrm{I} \cdot 63$ | $8 \mathrm{I} \cdot 45$ | $81 \cdot 27$ |
| 87 | 83.02 | $82 \cdot 85$ | 82.67 | 82.50 | $82 \cdot 32$ |
| 88 | 84.07 | 83.89 | 83.72 | 83.54 | 83.36 |
| 89 | 85.11 | 84.93 | 84.76 | 84.58 | 84.40 |
| 90 | 86-13 | 85.96 | 85.78 | $85 \cdot 61$ | 85.44 |
| 91 | 87-18 | 87.01 | $86 \cdot 85$ | $86 \cdot 68$ | 86.51 |
| 92 | 88.27 | 88-14 | 87.94 | 87.78 | 87.61 |
| 93 | $89 \cdot 38$ | $89 \cdot 22$ | 89.05 | 88.89 | $88 \cdot 72$ |
| 94 | $90 \cdot 45$ | 90.29 | 90.12 | 89.96 | 89.80 |
| 95 | 91.50 | 91.34 | 91.17 | 91.01 | 90.84 |
| 96 | 92.57 | 92.40 | 92.24 | 92.07 | 91.91 |
| 97 | 93.62 | 93.47 | 93.29 | 93.13 | 92.97 |
| 98 | $94 \cdot 64$ | 94.48 | 94.33 | 94.17 | 94.02 |
| 99 | 95.69 | 95.54 | 95.38 | 95:23 | 95.08 |
| 100 | 96.74 | 96•59 | $96 \cdot 45$ | $96 \cdot 30$ | 96.15 |

$86^{\circ}-90^{\circ}$
COMMERCIAL VALUE．

| 皆家家 | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $0 \cdot 31$ | $0 \cdot 30$ | $0 \cdot 29$ | 0.28 | 0.27 |
| 2 | $0 \cdot 93$ | $0 \cdot 91$ | $0 \cdot 88$ | 0.86 | 0.83 |
| 3 | 1.69 | 1.65 | 1.60 | 1.56 | 1.52 |
| 4 | 2.47 3.26 | 2.41 3.20 | 2.36 3.13 | 2.30 3.07 | 2.25 3.01 |
| 6 | $4 \cdot 10$ | 4.03 | $3 \cdot 97$ | 3.90 | 3．83 |
| 7 | 4.97 | $4 \cdot 89$ | $4 \cdot 81$ | $4 \cdot 73$ | $4 \cdot 65$ |
| 8 | 5.81 | $5 \cdot 72$ | $5 \cdot 63$ | 5.54 | $5 \cdot 45$ |
| 9 | $6 \cdot 63$ | 6.54 | $6 \cdot 44$ | $6 \cdot 35$ | $6 \cdot 26$ |
| 10 | $7 \cdot 45$ | 735 | $7 \cdot 26$ | $7 \cdot 16$ | 7.06 |
| 11 | 8.30 | $8 \cdot 19$ | 8.09 | 7.98 | 7.87 |
| 12 | $9 \cdot 13$ | 9.02 | 8.90 | 8.79 | 8.67 |
| 13 | 9.95 | $9 \cdot 83$ | 9.71 | 9.59 | 9.47 |
| 14 | 10.77 | $10 \cdot 65$ | $10 \cdot 52$ | 10.40 | 10.28 |
| 15 | 11.59 | 11.46 | 1134 | 11.21 | 11.08 |
| 16 | 12.44 | 12.30 | 12.17 | 12.03 128 | 11.90 |
| 17 | 13.27 | 13.13 | 13.00 | 12.86 | 12.72 |
| 18 | $1{ }^{1} 12$ | 13.97 | 13.83 | 13.68 | 13.54 |
| 19 | 14.90 15.68 | 14.75 | 14.61 15.38 | 14.46 15.23 | $\begin{array}{r}14.31 \\ 5.08 \\ \hline\end{array}$ |
| 20 | 15.68 | 15.53 | 15.38 | $15^{\prime 2} 3$ | 15.08 |
| 21 | 16.47 | $16 \cdot 32$ | $16 \cdot 16$ | 16.01 | 15.85 |
| 22 | 17.29 | 17.13 | 16.98 | 16.82 | 16.66 |
| ${ }_{24}^{23}$ | 18.23 10.19 | 18.07 10.03 | 17.92 18.87 | 17.76 18.71 | 17.60 18.55 |
| 2 | 19.19 20.15 | 19.03 20.00 | 18.87 19.84 | 1871 19.69 | 18.55 19.53 |

$86^{\circ}-30^{\circ}$
COMMERCIAL VALUE.

|  | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $2 \mathrm{I} \cdot 08$ | 20.92 | $20 \cdot 77$ | $20 \cdot 61$ | $20 \cdot 45$ |
| 27 | 22.01 | 21.85 | 21.70 | 21.54 | 21.38 |
| 28 | 22.97 | 22.81 | 22.65 | 22.49 | 22.33 |
| 29 | 23.92 | 23.76 | 23.59 | 23.43 | 23.27 |
| 30 | 24.90 | 24.74 | 24.57 | 2.4 .41 | 24.25 |
| 31 | $25 \cdot 88$ | 25.71 | 25.55 | $25 \cdot 38$ | $25^{.22}$ |
| 32 | $26 \cdot 84$ | 26.67 | $26 \cdot 51$ | 26.34 | $26 \cdot 18$ |
| 33 | $27 \cdot 80$ | $27 \cdot 63$ | 27.47 | 27.30 | $27 \cdot 13$ |
| 34 | $28 \cdot 76$ | 28.59 | 28.43 | 28.26 | 28.09 |
| 35 | 29.73 | 29.57 | 29.40 | $29 \cdot 24$ | 29.07 |
| 36 | $30 \cdot 71$ | $30 \cdot 54$ | $30 \cdot 38$ | 30.21 |  |
| 37 | 31.67 | 31.50 | $3 \mathrm{I} \cdot 32$ | 31.15 | 30.98 |
| 38 | $32 \cdot 62$ | $32 \cdot 45$ | $32 \cdot 28$ | $32 \cdot 11$ | 31.94 |
| 39 | $33 \cdot 65$ | 33.47 | $33 \cdot 30$ | $33 \cdot 12$ | 32.95 |
| 40 | 34.69 | 34.51 | $34 \cdot 34$ | $34 \cdot 16$ | 33.99 |
| 41 | $35 \cdot 67$ | $35 \cdot 50$ | $35 \cdot 32$ | $35^{1 / 5}$ | 34.98 |
| 42 | $36 \cdot 65$ | $36 \cdot 48$ | $36 \cdot 30$ | $36 \cdot 13$ | 35.95 |
| 43 | $37 \cdot 62$ | $37 \cdot 44$ | $37 \cdot 27$ | 37.09 | 36.91 |
| 44 | $38 \cdot 61$ | $38 \cdot 43$ | $38 \cdot 25$ | 38.07 | 37.89 |
| 45 | $39 \cdot 64$ | 39.46 | $39 \cdot 28$ | $39 \cdot 10$ | 38.92 |
| 46 | $40 \cdot 65$ | $40 \cdot 48$ | $40 \cdot 30$ | $40 \cdot 13$ | $39^{\circ} 95$ |
| 47 | 41.66 | $41 \cdot 48$ | $41 \cdot 30$ | $41 \cdot 12$ | 40.94 |
| 48 | $42 \cdot 66$ | $42 \cdot 48$ | $42 \cdot 29$ | $42 \cdot 11$ | 41.93 |
| 49 | $43 \cdot 67$ | 43.49 | $43 \cdot 30$ | $43 \cdot 12$ | 42.94 |
| 50 | $44 \cdot 69$ | 44.50 | $44 \cdot 32$ | $44^{1} 13$ | 43.95 |

$86^{\circ}-90^{\circ}$
COMMERCIAL VALUE.

| $\mid$ | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | $45 \cdot 70$ | $45 \cdot 51$ | $45 \cdot 33$ | $45 \cdot 14$ | 44.96 |
| 52 | $46 \cdot 67$ | $46 \cdot 48$ | $46 \cdot 30$ | $46 \cdot 11$ | 45.93 |
| 53 | $47 \cdot 66$ | $47 \cdot 48$ | $47 \cdot 29$ | $47 \cdot 11$ | $46 \cdot 92$ |
| 54 | $48 \cdot 65$ | $48 \cdot 46$ | $48 \cdot 28$ | $48 \cdot 09$ | 47.91 |
| 55 | $49 \cdot 64$ | $49 \cdot 46$ | $49 \cdot 27$ | 49.09 | $48 \cdot 90$ |
| 56 | 50.66 | 50.47 | 50.29 | $50 \cdot 10$ | $49^{\circ} 91$ |
| 57 | $51 \cdot 67$ | $51 \cdot 48$ | 51.30 | $5 \mathrm{I} \cdot \mathrm{II}$ | $50 \cdot 92$ |
| 58 | $52 \cdot 67$ | 52.48 | $52 \cdot 30$ | $52 \cdot 11$ | 51.92 |
| 59 | 53.66 | 53.47 | $53 \cdot 28$ | 53.09 | 52.90 |
| 60 | - 54.64 | 54.46 | 54.27 | 54.09 | 53.90 |
| 61 | $55 \cdot 63$ | 55.44 | $55 \cdot 25$ | 55.06 | 54.87 |
| 62 | 56.63 | 56.44 | 56.25 | 56.06 | 55.87 |
| 63 | 57.66 | 57.47 | $57 \cdot 28$ | 57.09 | 56.90 |
| 64 | $58 \cdot 68$ | 58.49 | $58 \cdot 31$ | $58 \cdot 12$ | 57.93 |
| 65 | 59.70 | 59.52 | $59 \cdot 33$ | $59 \cdot 15$ | $58 \cdot 96$ |
| 66 | $60 \cdot 70$ | 60.51 | $60 \cdot 33$ | $60 \cdot 14$ | 59.95 |
| 67 | 61.69 | 61.49 | 61.30 | $61 \cdot 10$ | 60.90 |
| 68 | $62 \cdot 70$ | 62.51 | $62 \cdot 31$ | $62 \cdot 12$ | 61.93 |
| 69 | 63.71 | 63.52 | 63.33 | $63 \cdot 14$ | 62.95 |
| 70 | 64.71 | 64.52 | $64 \cdot 33$ | $64 \cdot 14$ | 63.95 |
| 71 | $65 \cdot 73$ | $65 \cdot 54$ | $65 \cdot 36$ | $65 \cdot 17$ | 64.98 |
| 72 | $66 \cdot 73$ | - 66.54 | $66 \cdot 36$ | $66 \cdot 17$ | 65.98 |
| 73 | $67 \cdot 74$ | 67.55 | - $67 \cdot 37$ | $67 \cdot 18$ | $66 \cdot 99$ |
| 74 | $68 \cdot 75$ | 68.56 | $68 \cdot 38$ | 68.19 | $68 \cdot 00$ |
| 75 | $69 \cdot 78$ | $69 \cdot 59$ | $69 \cdot 40$ | $69 \cdot 21$ | 69.02 |

$86^{\circ}-90^{\circ}$
COMMERCIAL VALUE.

| 家: | $86^{\circ}$ | $87^{\circ}$ | $88^{\circ}$ | $89^{\circ}$ | $90^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $70 \cdot 79$ | $70 \cdot 60$ | $70 \cdot 42$ | $70 \cdot 23$ | 70.04 |
| 77 | 71.81 | 71.62 | 71.44 | 71.25 | 71.06 |
| 78 | 72.82 | 72.64 | 72.45 | $7 \cdot 2 \cdot 27$ | 72.09 |
| 79 | $73 \cdot 84$ | $73 \cdot 65$ | 73.47 | $73 \cdot 28$ | 73.09 |
| 80 | $74 \cdot 86$ | $74 \cdot 68$ | 74.49 | 74.31 | $74 \cdot 12$ |
| 81 | 75.88 | 75.70 | $75 \cdot 51$ | $75 \cdot 33$ | 75.14 |
| 82 | $76 \cdot 91$ | $76 \cdot 73$ | 76.55 | $76 \cdot 37$ | $76 \cdot 19$ |
| 83 | 77.96 | $77 \cdot 78$ | $77 \cdot 61$ | 77.43 | $77 \cdot 25$ |
| 84 | 79.00 | 78.82 | $78 \cdot 64$ | $78 \cdot 46$ | $78 \cdot 28$ |
| 85 | 80.03 | 79.85 | $79 \cdot 68$ | 79.50 | $79 \cdot 3^{2}$ |
| 86 | 81.09 | $80 \cdot 92$ | $80 \cdot 74$ | 80.57 | $80 \cdot 39$ |
| 87 | $82 \cdot 15$ | 81.97 | 8 I 1.80 | 81.62 | 81.45 |
| 88 | $83 \cdot 18$ | 83.00 | 82.83 | $82 \cdot 65$ | 82.47 |
| 89 | 84.23 | 84.05 | $83 \cdot 88$ | 83.70 | 83.53 |
| 90 | $85 \cdot 27$ | $85 \cdot 11$ | 84.94 | 84.78 | 84.61 |
| 91 | $86 \cdot 35$ | 86.19 | $86 \cdot 02$ | $85 \cdot 86$ | $85 \cdot 70$ |
| 92 | 87.45 | $87 \cdot 29$ | $87 \cdot 12$ | $86 \cdot 96$ | $86 \cdot 80$ |
| 93 | 88.56 | 88.40 | $88 \cdot 24$ | 88.08 | $87 \cdot 9^{2}$ |
| 94 | $89 \cdot 64$ | $89 \cdot 48$ | $89 \cdot 32$ | $89 \cdot 16$ | 89.00 |
| 95 | 90.68 | 90:53 | 90.37 | $90 \cdot 22$ | 90.06 |
| 96 | 91.75 | 91-59 | 91.44 | 91.28 | 91-12 |
| 97 | $92 \cdot 81$ | 92.66 | 92.50 | $92 \cdot 35$ | 92-19 |
| 98 | $93 \cdot 87$ | 93.71 | 93.56 | 93.40 | 93.25 |
| 99 | $9+92$ | 94.76 | $94 \cdot 61$ | 94.45 | 94.29 |
| 100 | $95 \cdot 00$ | $95 \cdot 84$ | $95 \cdot 69$ | 95.53 | $95 \cdot 38$ |

$$
91^{\circ}-95^{\circ}
$$

COMMERCIAL VALUE.

|  | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 |
| 2 | 0.81 | $0 \cdot 79$ | 0.76 | $0 \cdot 74$ | $0 \cdot 72$ |
| 3 | 1.48 | $1 \cdot 44$ | 1.41 | $1 \cdot 37$ | I 33 |
| 4 | $2 \cdot 20$ | $2 \cdot 15$ | $2 \cdot 11$ | $2 \cdot 06$ | 2.01 |
| 5 | $2 \cdot 96$ | $2 \cdot 90$ | 2.85 | $2 \cdot 79$ | $2 \cdot 74$ |
| 6 | $3 \cdot 76$ | $3 \cdot 70$ | $3 \cdot 63$ | 3.57 | $3 \cdot 50$ |
| 7 | $4 \cdot 57$ | 4.49 | 4.42 | 4.34 | $4 \cdot 26$ |
| 8 | $5 \cdot 36$ | $5 \cdot 28$ | $5 \cdot 19$ | 5-1 I | $5 \cdot 02$ |
| 9 | $6 \cdot 17$ | $6 \cdot 08$ | $5 \cdot 98$ | $5 \cdot 89$ | $5 \cdot 80$ |
| 10 | $6 \cdot 96$ | $6 \cdot 86$ | $6 \cdot 77$ | $6 \cdot 67$ | $6 \cdot 57$ |
| 11 | $7 \cdot 76$ | $7 \cdot 66$ | $7 \cdot 55$ | $7 \cdot 44$ | $7 \cdot 34$ |
| 12 | $8 \cdot 56$ | $8 \cdot 45$ | $8 \cdot 34$ | $8 \cdot 23$ | $8 \cdot 12$ |
| 13 | $9 \cdot 35$ | $9 \cdot 24$ | $9 \cdot 12$ | $9 \cdot 1$ | $8 \cdot 89$ |
| 14 | $10 \cdot 16$ | 10.04 | 9.91 | $9 \cdot 79$ | $9 \cdot 67$ |
| 15 | 10.96 | 10.83 | 10.71 | 10.58 | 10.46 |
| 16 | 11.77 | 11.64 | 11.51 | II. $3^{8}$ | 11.25 |
| 17 | 12.59 | 12.45 | 12.32 | $12 \cdot 18$ | 12.05 |
| 18 | 13.40 | 13.26 | 13.13 | 12.99 | 12.85 |
| 19 | 14.17 | 14.03 | 13.89 | 13.75 | 13.61 |
| 20 | 14.94 | 14.79 | 14.65 | 14.50 | 14.36 |
| 21 | 15.70 | 15.56 | 15.41 | 15.27 | $15 \cdot 12$ |
| 22 | 16.51 | $16 \cdot 36$ | 16.22 | 16.07 | 15.92 |
| 23 | 17.45 | 17.30 | 17.15 | 17.00 | 16.85 |
| 24 | 18.40 | $18 \cdot 26$ | $18 \cdot 11$ | 17.97 | 17.82 |
| 25 | 19.38 | 19.24 | 19.09 | 18.95 | 18.80 |

COMMERCIAL VALUE.

|  | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | $95^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | $20 \cdot 30$ | $20 \cdot 15$ | 20.00 | 19.85 | 19.70 |
| 27 | 21.23 | 2 I.08 | 20.93 | $20 \cdot 78$ | 20.63 |
| 28 | $22 \cdot 18$ | 22.03 | 21.87 | $21 \cdot 72$ | 21.57 |
| 29 | $23 \cdot 12$ | 22.97 | $22 \cdot 83$ | 22.68 | 22.53 |
| 30 | , 24.10 | 23.95 | 23.79 | $23 \cdot 64$ | 23.49 |
| 31 | 25.06 | 24.90 | 24.74 | 24.58 | 24.42 |
| 32 | 26.02 | $25 \cdot 86$ | 25.71 | 25.55 | 25.39 |
| 33 | 26.98 | 26.82 | $26 \cdot 67$ | 26.51 | $26 \cdot 36$ |
| 34 | 27.94 | $27 \cdot 78$ | 27.63 | 27.47 | 27.32 |
| 35 | 28.91 | $28 \cdot 75$ | $28 \cdot 60$ | 28.44 | $28 \cdot 28$ |
| 36 | 29.88 | 29.72 | 29.56 | 29.40 | $29^{\circ} 24$ |
| 37 | $30 \cdot 82$ | 30.66 | $30 \cdot 49$ | $30 \cdot 33$ | $30 \cdot 17$ |
| 38 | 31.77 | 31.61 | 31.44 | 31.28 | $3 \mathrm{I} \cdot \mathrm{II}$ |
| 39 | $32 \cdot 79$ | $32 \cdot 62$ | $32 \cdot 46$ | $32 \cdot 29$ | $32 \cdot 13$ |
| 40 | $33 \cdot 83$ | $33 \cdot 67$ | 33.50 | $33 \cdot 34$ | $33 \cdot 18$ |
| 41 | 34.81 | $34 \cdot 65$ | 34.48 | $34 \cdot 32$ | $34^{1} 5$ |
| 42 | $35 \cdot 78$ | $35 \cdot 62$ | $35 \cdot 45$ | $35 \cdot 29$ | $35 \cdot 12$ |
| 43 | $36 \cdot 74$ | $36 \cdot 57$ | $36 \cdot 40$ | 36.23 | 36.06 |
| 44 | $37 \cdot 72$ | 37.55 | $37 \cdot 38$ | $37 \cdot 21$ | 37.04 |
| 45 | $38 \cdot 75$ | $38 \cdot 58$ | $38 \cdot 4 \mathrm{I}$ | $38 \cdot 24$ | $38 \cdot 07$ |
| 46 | $39 \cdot 78$ | 39.60 | 39.43 | $39 \cdot 25$ | 39.08 |
| 47 | $40 \cdot 77$ | $40 \cdot 59$ | $40 \cdot 42$ | $40 \cdot 24$ | $40 \cdot 07$ |
| 48 | 41.76 | 41.59 | 41.41 | 41-24 | $41 \cdot 07$ |
| 49 | $42 \cdot 77$ | 42.59 | 42.42 | $42 \cdot 24$ | $42 \cdot 07$ |
| 50 | $43 \cdot 77$ | $43 \cdot 60$ | 43.42 | $43 \cdot 25$ | $43 \cdot 07$ |

$$
91^{\circ}-95^{\circ}
$$

COMMERCIAL VALUE.

| E | $91^{\circ}$ | $92^{\circ}$ | $93^{\circ}$ | $94^{\circ}$ | 95 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 44.78 | $44 \cdot 60$ | 44.4 |  |  |
| 52 | 45.75 | 45.57 |  |  |  |
| $53$ | 46.74 47 4 | 46 | 46 | 46 |  |
| 55 | 48.72 | 48.54 | 48.35 | 4 | -9 |
| 56 | $49 \cdot 7$ | 49.54 | $49 \cdot 36$ |  | 48.99 |
| 57 | 50.74 | 50 | 50.37 | 50.19 |  |
| 58 | 51.74 | 51.56 | 51.3 | 51.19 | 1 |
| 59 | ${ }^{52} 572$ | 52.54 | 52.36 | 52 |  |
| 60 | 53.72 | 53 | 53.35 | $53 \cdot 1$ |  |
| 61 | 54.69 | 54 | 54.32 | 54.14 | 53.96 |
| 62 |  |  | 55.31 | 55.13 | 5 |
| 63 | 56.72 | 56.54 | 56.35 | $56 \cdot 17$ |  |
| 64 |  |  | 57.39 |  |  |
| 65 | 58 |  | 58.41 | 58.23 |  |
| 66 | 59.77 | 59.59 | 59.40 | 59.22 | - |
| 67 | $60 \cdot 72$ |  |  | 60.20 | 0.0 |
| 68 | 61.7 | 61.56 | 61. | 61.19 | 61.01 |
| 69 | $62 \cdot 76$ | 62.57 | $62 \cdot 39$ | 62 | 62.01 |
| 70 | $63 \cdot 76$ | 63.58 | 63.39 | $63 \cdot 21$ | 3.02 |
| 71 | 64 | 64.6r | $64 \cdot 42$ |  |  |
| 72 |  | ${ }^{65} 6.61$ | 65.42 | 65.24 | 65.05 |
| 73 | 6 | $66 \cdot 62$ | 66.44 |  |  |
|  | 67.82 |  | 67.45 |  |  |
|  | 68.84 | 68.65 | 68.47 | 68.28 | 68.10 |

$91^{\circ}-95^{\circ}$
COMMERCIAL VALUE.

| \% | 91 | $92^{\circ}$ | 93 | 94 | 95 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | 69.86 | 69 |  |  |  |
| 77 | 70.88 | $70 \cdot 69$ | 70.5 |  |  |
| 78 | 71.91 | 71.72 | 71.5 | 71 | $71 \cdot 1$ |
| 79 | 72.91 | 72.73 | $72 \cdot 5$ |  |  |
| 80 | 73.94 | 73.75 | $73 \cdot 5$ |  |  |
| 81 | 74.96 | 74. | 74 | 74.43 | 74.2 |
| 82 | 76.0 |  |  |  |  |
|  |  |  |  |  |  |
| 88 |  |  |  |  |  |
| 86 | 80 | 80.0 |  |  |  |
| 87 | $81 \cdot 27$ | 81.09 |  |  |  |
| 8 | $82 \cdot 3$ | $82 \cdot 12$ |  |  |  |
| 89 | $83 \cdot 3$ | 83.20 |  |  |  |
| 90 | $84^{\prime} 4$ | 84.29 |  |  |  |
|  | 85.54 |  |  |  |  |
| 92 |  |  |  |  |  |
| 93 |  |  |  |  | $87 \cdot 1$ |
| 94 95 |  | 88.69 89.75 |  | $88 \cdot{ }^{8} 8$ 89.44 |  |
|  |  | 90.82 | $90 \cdot 6$ | go |  |
| 97 | 92.04 | 91.89 | go |  | 1. |
|  | $93 \cdot 1$ | 92.95 |  | $92 \cdot 6$ | $92 \cdot 5$ |
|  | 94-15 | 94.01 |  |  |  |
|  | 95 | $95^{\circ}$ | 94 |  |  |

$96^{\circ}-100^{\circ}$
COMMERCIAL VALUE.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.21 | 0.21 | 0.20 | 0.20 | $0 \cdot 19$ |
| 2 | $0 \cdot 70$ | $0 \cdot 68$ | 0.66 | 0.64 | 0.62 |
| 3 | 1.30 | I. 27 | 1. 24 | 1.21 | I-18 |
| 4 | $1 \cdot 97$ | 1.93 | I.89 | 1.85 | I.81 |
| 5 | $2 \cdot 69$ | $2 \cdot 64$ | $2 \cdot 58$ | $2 \cdot 53$ | $2 \cdot 48$ |
| 6 | 3.44 | $3 \cdot 37$ | $3 \cdot 31$ | $3 \cdot 24$ | $3 \cdot 18$ |
| 7 | $4 \cdot 19$ | $4 \cdot 12$ | 4.04 | 3.97 | 3.90 |
| 8 | 4.94 | $4 \cdot 86$ | $4 \cdot 79$ | 4.71 | $4 \cdot 63$ |
| 9 | $5 \cdot 71$ | $5 \cdot 63$ | $5 \cdot 54$ | $5 \cdot 46$ | $5 \cdot 37$ |
| 10 | $6 \cdot 47$ | $6 \cdot 38$ | $6 \cdot 28$ | 6.19 | $6 \cdot 09$ |
| 11 | $7 \cdot 24$ | $7 \cdot 14$ | 7.04 | $6 \cdot 94$ | $6 \cdot 84$ |
| 12 | $8 \cdot 1$ | 7.91 | $7 \cdot 80$ | $7 \cdot 70$ | 7.59 |
| 13 | $8 \cdot 78$ | $8 \cdot 67$ | $8 \cdot 56$ | $8 \cdot 45$ | $8 \cdot 34$ |
| 14 | 9.55 | $9 \cdot 44$ | $9 \cdot 32$ | $9 \cdot 2 \mathrm{I}$ | $9 \cdot 09$ |
| 15 | 10.34 | 10.22 | 10.10 | 9.98 | $9 \cdot 86$ |
| 16 | II 1 13 | 11.00 | 10.88 | 10.75 | 10.63 |
| 17 | 11.92 | I 1.80 | I I 67 | II 155 | 11.42 |
| 18 | $12 \cdot 72$ | 12.59 | 12.47 | $12 \cdot 34$ | 12.21 |
| 19 | 13.48 | 13.35 | 13.21 | 13.08 | 12.95 |
| 20 | 14.24 | 14.09 | 13.95 | 13.82 | 13.68 |
| 21 | 14.98 | 14.85 | 14.71 | 14.58 | 14.44 |
| 22 | $15 \cdot 78$ | $15 \cdot 64$ | 15.51 | 15.37 | 15.23 |
| 23 | 16.72 | 16.58 | 16.45 | $16 \cdot 31$ | 16.18 |
| 24 | 17.68 | 17.54 | 17.41 | 17.27 | $17 \cdot 13$ |
| 25 | 18.66 | 18.52 | 18.39 | 18.25 | I $8 \cdot 1 \mathrm{I}$ |

COMMERCIAL VALUE.

| 家宫 | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 19.57 | 19.43 | 19.30 | $19 \cdot 16$ | $19^{\circ} 03$ |
| 27 | 20.49 | $20 \cdot 35$ | 20.22 | 20.08 | 19.94 |
| 28 | 21.43 | 21.29 | $21 \cdot 16$ | 21.02 | 20.88 |
| 29 | $22 \cdot 39$ | 22.24 | $22 \cdot 10$ | 21.95 | 21.81 |
| 30 | 23.35 | 23.20 | 23.06 | 22.91 | $22 \cdot 77$ |
| 31 | 24.28 | $24^{\circ} 14$ | 24.01 | $23 \cdot 87$ | 23.73 |
| 32 | $25 \cdot 25$ | $25 \cdot 11$ | 24.96 | 24.82 | 24.68 |
| 33 | 26.21 | $26 \cdot 07$ | 25.92 | $25 \cdot 78$ | 25.63 |
| 34 | $27 \cdot 17$ | 27.02 | $26 \cdot 88$ | $26 \cdot 73$ | 26.58 |
| 35 | $28 \cdot 13$ | 27.98 | $27 \cdot 83$ | $27 \cdot 68$ | 27.53 |
| 36 | 29.09 | 28.93 | 28.78 | 28.62 | 28.47 |
| 37 | 30.02 | 29.86 | 29.71 | 29.55 | 29.40 |
| 38 | 30.95 | $30 \cdot 79$ | $30 \cdot 64$ | $30 \cdot 48$ | $30 \cdot 32$ |
| 39 | 31.98 | $3 \mathrm{I} \cdot 82$ | 31.67 | $3 \mathrm{I} \cdot 51$ | $31 \cdot 36$ |
| 40 | 33.02 | $32 \cdot 86$ | $32 \cdot 71$ | 32.55 | $32 \cdot 39$ |
| 41 | 33.99 | 33.83 | $33 \cdot 68$ | 33.52 | 33.36 |
| 42 | 34.96 | 34.80 | 34.63 | 34.47 | 34.31 |
| 43 | 35.90 | $35 \cdot 74$ | 35.58 | $35 \cdot 42$ | $35 \cdot 26$ |
| 44 | $36 \cdot 88$ | $36 \cdot 72$ | $36 \cdot 56$ | $36 \cdot 40$ | $36 \cdot 24$ |
| 45 | 37.91 | $37 \cdot 75$ | $37 \cdot 58$ | $37 \cdot 42$ | $37 \cdot 26$ |
| 46 | $38 \cdot 91$ | $38 \cdot 75$ | $38 \cdot 58$ | $38 \cdot 42$ | $38 \cdot 25$ |
| 47 | 39.90 | 39.74 | 39.57 | 39.41 | $39 \cdot 24$ |
| 48 | $40 \cdot 90$ | $40 \cdot 74$ | $40 \cdot 57$ | $40 \cdot 41$ | $40 \cdot 2.4$ |
| 49 | 41.90 | $41 \cdot 73$ | $41 \cdot 56$ | 41•39 | $41 \cdot 22$ |
| 50 | 42.90 | $42 \cdot 73$ | $42 \cdot 56$ | $42 \cdot 39$ | $42 \cdot 22$ |

## $96^{\circ}-100^{\circ}$

COMMERCIAL VALUE.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 51 | 43.90 | $43 \cdot 73$ | 43.57 | $43 \cdot 40$ | $43 \cdot 23$ |
| 52 | $44 \cdot 87$ | 44.70 | 44.53 | $44 \cdot 36$ | $44^{19}$ |
| 53 | $45 \cdot 86$ | $45 \cdot 69$ | 45.51 | $45 \cdot 34$ | $45 \cdot 17$ |
| 54 | $46 \cdot 84$ | $46 \cdot 67$ | $46 \cdot 49$ | $46 \cdot 32$ | $46 \cdot 14$ |
| 55 | $47 \cdot 81$ | $47 \cdot 63$ | $47 \cdot 46$ | $47 \cdot 28$ | $47 \cdot 10$ |
| 56 | $48 \cdot 8 \mathrm{i}$ | $48 \cdot 64$ | $48 \cdot 46$ | $48 \cdot 29$ | 48-11 |
| 57 | $49 \cdot 83$ | $49 \cdot 65$ | $49 \cdot 48$ | $49 \cdot 30$ | $49 \cdot 12$ |
| 58 | $50 \cdot 84$ | 50.67 | 50.50 | 50.33 | $50 \cdot 16$ |
| 59 | 51.82 | 51.64 | 51.47 | $51 \cdot 29$ | $51 \cdot 11$ |
| 60 | $52 \cdot 80$ | $52 \cdot 62$ | 52.45 | $52 \cdot 27$ | $52 \cdot 09$ |
| 61 | 53.78 | $53 \cdot 60$ | 53.43 | 53.25 | 53.07 |
| 62 | 54.76 | 54.58 | 54.41 | 54.23 | 54.05 |
| 63 | $55 \cdot 81$ | 55.63 | 55.46 | $55 \cdot 28$ | $55 \cdot 10$ |
| 64 | 56.85 | $56 \cdot 67$ | 56.50 | $56 \cdot 32$ | $56 \cdot 14$ |
| 65 | 57.87 | 57.69 | 57.52 | $57 \cdot 34$ | $57 \cdot 16$ |
| 66 | 58.86 | 58.68 | $58 \cdot 50$ | $58 \cdot 3^{2}$ | $58 \cdot 14$ |
| 67 | $59 \cdot 84$ | $59 \cdot 66$ | 59.48 | $59 \cdot 30$ | $59 \cdot 12$ |
| 68 | 60.83 | $60 \cdot 64$ | $60 \cdot 46$ | 60.27 | 60.09 |
| 69 | $6 \mathrm{~L} \cdot 83$ | $61 \cdot 64$ | $6 \mathrm{I} \cdot 46$ | $6 \mathrm{I} \cdot 27$ | $6 \mathrm{I} \cdot 09$ |
| 70 | $62 \cdot 84$ | $62 \cdot 66$ | $62 \cdot 48$ | $62 \cdot 30$ | $62 \cdot 12$ |
| 71 | $63 \cdot 87$ | 63.69 | 63.50 | $63 \cdot 32$ | 93.14 |
| 72 | $64 \cdot 87$ | $64 \cdot 69$ | 64.52 | $64 \cdot 34$ | $64 \cdot 16$ |
| 73 | $65 \cdot 89$ | $65 \cdot 71$ | 65.53 | $65 \cdot 35$ | $65 \cdot 17$ |
| 74 | $66 \cdot 90$ | $66 \cdot 72$ | -66.54 | $66 \cdot 36$ | $66 \cdot 18$ |
| 75 | 67.92 | $67 \cdot 74$ | -67.56 | 67.38 | $67 \cdot 20$ |

COMMERCIAL VALUE.

|  | $96^{\circ}$ | $97^{\circ}$ | $98^{\circ}$ | $99^{\circ}$ | $100^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | $68 \cdot 94$ | $68 \cdot 76$ | 68.58 | $68 \cdot 40$ | 68.22 |
| 77 | 69.96 | 69.78 | $69 \cdot 60$ | $69 \cdot 42$ | $69 \cdot 24$ |
| 78 | $70 \cdot 99$ | $70 \cdot 81$ | $70 \cdot 64$ | $70 \cdot 46$ | 70.28 |
| 79 | 72.01 | 71.83 | 71.65 | 71.47 | 71.29 |
| 80 | 73.02 | $72 \cdot 85$ | $72 \cdot 67$ | $72 \cdot 50$ | $72 \cdot 32$ |
| 81 | 74.07 | 73.90 | 73.72 | 73.55 | 73.37 |
| 82 | $75^{1} 13$ | 74.95 | 74.78 | $74 \cdot 60$ | 74.43 |
| 83 | 76.19 | $76 \cdot 02$ | 75.84 | 75.67 | 75.50 |
| 84 | $77 \cdot 23$ | $77 \cdot 06$ | $76 \cdot 90$ | $76 \cdot 73$ | $76 \cdot 56$ |
| 85 | $78 \cdot 28$ | 78-1 I | $77 \cdot 95$ | 7778 | $77 \cdot 61$ |
| 86 | 79.35 | $79^{\cdot 18}$ | $79^{\circ} \mathrm{O}$ | $78 \cdot 84$ | $78 \cdot 67$ |
| 87 | $80 \cdot 39$ | 80.22 | 80.04 | 79.87 | $79 \cdot 70$ |
| 88 | 81.44 | 81.28 | 81.12 | 80.96 | $80 \cdot 80$ |
| 89 | 82.55 | 82.39 | 82.23 | 82.07 | $8 \mathrm{I} \cdot 9 \mathrm{I}$ |
| 90 | $83 \cdot 64$ | 83.48 | $83 \cdot 33$ | $83 \cdot 17$ | 83.01 |
| 91 | 84.73 | 84.57 | 84.42 | 84.26 | $84 \cdot 10$ |
| 92 | 85.85 | 85.69 | $85 \cdot 54$ | $85 \cdot 38$ | 85.22 |
| 93 | $86 \cdot 98$ | $86 \cdot 82$ | $86 \cdot 67$ | 86.51 | $86 \cdot 36$ |
| 94 | 88.06 | 87.90 | $87 \cdot 75$ | 87.59 | 87.44 |
| 95 | 89.14 | $88 \cdot 98$ | 88.83 | 88.67 | $88 \cdot 52$ |
| 96 | $90 \cdot 22$ | 90.07 | 89.91 | $89 \cdot 76$ | 89.61 |
| 97 | 91.29 | 9I•14 | 90.99 | 90.84 | 90.69 |
| 98 | $92 \cdot 36$ | 92.22 | 92.07 | 92.93 | 91.78 |
| 99 | 93.44 | 93.29 | 93.14 | 92.99 | $92 \cdot 84$ |
| 100 | 94.5 | $94 \cdot 36$ | $94^{.2} \mathrm{I}$ | 94.06 | 93.91 |

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## MR 273674

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\begin{aligned}
& T P 610 \\
& M 27
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