
Maglathlin

(Maqlatllini)

Greenleaf's Mathematical Series.

FIRST LESSONS

IN

NUMBERS,

ORAL AND WRITTEN.

[Maglathlin, Henry Bartlett]

ON THE BASIS OF WORKS

OF

BY BENJAMIN GREENLEAF, A.M.

LEACH, SHEWELL, AND SANBORN.
BOSTON. NEW YORK. CHICAGO.

GREENLEAF'S

MATHEMATICAL SERIES.

INDUCTIVE COURSE.

FIRST LESSONS IN NUMBERS.

A BRIEF COURSE IN ARITHMETIC.

THE COMPLETE ARITHMETIC.

The BRIEF COURSE and the COMPLETE ARITHMETIC ar
each published with and without answers.

KEY TO THE COMPLETE ARITHMETIC, for Teachers onl

Norwood Press:
Berwick & Smith, Boston, U.S.A.

PREFACE.

THE FIRST LESSONS IN NUMBERS has been prepared in the belief that the objective presentation of numbers is best suited to the comprehension of the child. The teacher who uses this book is expected to make constant use of counters, blocks, or other visible objects, that from the outset the child may have correct ideas of numbers. The copious illustrations found throughout the book are intended as aids in this direction.

The development of numbers and the unfolding of processes are very simple and gradual, to correspond to the powers and growth of the child's mind. Addition and Subtraction are presented as converse operations, and are to be taught together, as are also Multiplication and Division. Experience has shown that this method secures the best results in the shortest time.

From the beginning oral and slate exercises are combined, the little learner being given something to employ his hands as well as his mind. The large number and variety of written exercises will be appreciated by teachers as relieving them from the necessity of furnishing much blackboard work.

The drill exercises with which the book abounds are very valuable as affording the only means for securing perfect familiarity with all the elementary combinations of numbers.

These and other features of the work will, we trust, commend it to the intelligent and practical teacher.

FIRST LESSONS IN NUMBERS.

LESSON 1.

One	House,	**1.**	**Six**	Rails,	**6.**
Two	Ships,	**2.**	**Seven**	Ducks,	**7.**
Three	Boats,	**3.**	**Eight**	Trees,	**8.**
Four	Boys,	**4.**	**Nine**	Birds,	**9.**
Five	Girls,	**5.**	**Ten**	Chicks,	**10.**

LESSON 2.

1 House,	I.	6 Rails,	VI.
2 Ships,	II.	7 Ducks,	VII.
3 Boats,	III.	8 Trees,	VIII.
4 Boys,	IV.	9 Birds,	IX.
5 Girls,	V.	10 Chicks,	X.

Name one thing. Hold up one hand. Make on the slate one mark. Make *1*.

Name two things. Hold up two hands. How many eyes have you?

One ship and one more are how many? Make on the slate two marks. Make *2*.

Count three. Name three things. Hold up three fingers.

Two boats and one more are how many? Make on the slate three marks. Make *3*.

Count four. Name four things. Hold up four fingers.

Three boys and one more are how many? Make on the slate four marks. Make *4*.

How many fingers have you on one hand? Count five.

Four girls and one more are how many? Make on your slate five marks. Make *5*.

ingle thing, as a house, is called **One**.

r many are one and one? Two and one? Three e? Four and one? Five and one?

LESSON 3.

Five rails and one more are how many?

Make on your slate six marks. Make *6*.

Six ducks and one more are how many?

Count seven. Make on your slate seven marks. Make *7*.

Seven trees and one more are how many? Hold up eight fingers. Make on your slate eight marks. Make *8*.

Eight birds and one more are how many? Count nine.

John has eight cents, and his brother has as many and one more. How many has his brother?

Make on your slate nine marks. Make *9*.

Nine chickens and one more are how many? Count ten.

Mary is nine years old, and Susan is a year older. How old is Susan?

Make on your slate ten crosses. Make *10*.

1, 2, 3, 4, 5, 6, 7, 8, 9, 0, are **Figures**, and stand for numbers.

The figure 0 is called **Zero, or Cipher.**
0 when written alone stands for **Nothing.**

Recite the table beginning 0 and 1 are 1:

0 and 1 are 1	5 and 1 are 6
1 and 1 are 2	6 and 1 are 7
2 and 1 are 3	7 and 1 are 8
3 and 1 are 4	8 and 1 are 9
4 and 1 are 5	9 and 1 are 10

LESSON 4.

1. A boy had a hat on, but the wind blew it into the water and it was lost. How many hats had he left?

1 from 1 leaves how many?

2. John and James had together 2 hats; James lost his. How many hats were there left?

1 from 2 leaves how many?

3. Three girls were standing, but one of them is now sitting on the ground. How many remain standing?

1 from 3 leaves how many?

4. Make upon your slate 4 marks. Rub out 1, and how many will remain?

1 from 4 leaves how many?

5. Without the thumb how many fingers are there on one of your hands?

1 from 5 leaves how many?

6. On a branch there are 6 acorns. Take away one of them, and how many will be left?

1 from 6 leaves how many?

7. On two branches there are 7 acorns, but one of the branches has only 1 acorn on it. How many are there on the other?

1 from 7 leaves how many?

8. Make on your slate 8 figures. Rub out 1 figure and how many will be left?

1 from 8 leaves how many?

9. Eddie had 9 cents, but spent 1 for candy. How many cents had he left?

1 from 9 leaves how many?

10. Susan is 10 years old, and Mary 1 year younger. How old is Mary?

1 from 10 leaves how many?

Copy and read:

2, 5, 3, 6, 1, 4, 7.

LESSON 5.

1. A cat ran after 2 rats; she caught 1. How many got away?

1 and 1 are how many?

2. Hold up 3 fingers, close 1, and how many are up?

1 and 2 are how many?

3. Make on your slate 5 marks. Rub out 1, and how many are left?

1 and 4 are how many?

4. In the picture are 7 flowers. One of them has the stem broken; how many have whole stems?

1 and 6 are how many?

5. The sign + means **more**, and may be read **and**.

Thus, 1 + 6 is read 1 and 6.

6. The sign − means **less**, and is so read.

Thus, 6 − 1 is read 6 less 1.

7. The sign = means **equals**, and may be read **are**.

Thus 1 + 4 = 5 is read 1 and 4 are 5.

Recite the tables:

8.	9.
1 + 1 = 2	2 − 1 = 1
1 + 2 = 3	3 − 1 = 2
1 + 3 = 4	4 − 1 = 3
1 + 4 = 5	5 − 1 = 4
1 + 5 = 6	6 − 1 = 5
1 + 6 = 7	7 − 1 = 6
1 + 7 = 8	8 − 1 = 7
1 + 8 = 9	9 − 1 = 8
1 + 9 = 10	10 − 1 = 9

10. Take 1 from each of the following numbers:

5, 8, 6, 9, 4, 7, 10.

LESSON 6.

1. On the right in the picture is 1 tree, and on the left are 2 trees. How many in all?

How many are 1 and 2? 3 less 1? 3 less 2?

2. On the border of a pool are 2 frogs in one place, and 2 more in another place. How many in all?

How many are 2 and 2?

3. If 4 frogs are on the border of a pool, and 2 of them should go away, how many would be left?

How many are 4 less 2?

4. In the picture how many rabbits do you see in one group, and how many in another? 3 rabbits and 2 rabbits are how many?

How many are 3 and 2? 2 and 3?

5. There are 5 rabbits in two groups. In one group there are 2 rabbits; how many are there in the other?

How many are 5 less 2? 5 less 3?

6. On one end of a log there are 4 frogs, and on the other 2 frogs. How many are there on the log?

How many are 4 and 2? 2 and 4?

7. On a log are 6 frogs. If 2 should jump off, how many would be left on the log?

How many are 6 less 2? 6 less 4?

8. Harry has 5 cousins living in the city, and 2 cousins living in the country. How many cousins has he in all?

How many are 5 and 2? 2 and 5?

9. In a pool are 7 lilies. If you should take away 2 of them, how many would be left?

How many are 7 less 2? 7 less 5?

10. On one tree are 7 birds and on another 2. How many on both trees?

How many are 7 and 2? 2 and 7?

11. There are 9 birds on two trees. One tree has 2 birds on it. How many on the other?

How many are 9 less 2? 9 less 7?

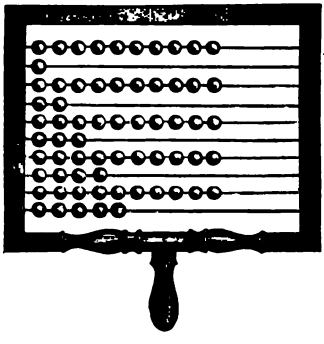
12. On two trees are 9 birds, and there are 2 more flying. How many in all?

How many are 9 and 2? 2 and 9?

13. Of 10 birds 2 are flying, and the others are on trees. How many are on trees?

How many are 10 less 2? 10 less 8?

LESSON 7.



1. How many balls are 10 balls and 1 ball? 10 and how many are eleven?

Write on your slate for *eleven* . . . . . *11.*

2. How many balls are 11 balls and 1 ball? 10 and how many are twelve?

Write on your slate for *twelve* . . . . . *12.*

3. How many balls are 12 balls and 1 ball? Count thirteen. 10 and how many are thirteen?

Write on your slate for *thirteen* . . . . . *13.*

4. How many balls are 13 balls and 1 ball? Count fourteen. 10 and how many are fourteen?

Write on your slate for *fourteen* . . . . . *14.*

5. How many balls are 14 balls and 1 ball? Count fifteen. 10 and how many are fifteen?

Write on your slate for *fifteen* . . . . . *15.*

6. Make on your slate for

Ten	X.	Thirteen	XIII.
Eleven	XI.	Fourteen	XIV.
Twelve	XII.	Fifteen	XV.

LESSON 8.

Recite the tables:

1.	2.	3.
1 + 2 = 3	3 − 2 = 1	2 + 3 = ?
2 + 2 = 4	4 − 2 = 2	6 + 2 = ?
3 + 2 = 5	5 − 2 = 3	2 + 4 = ?
4 + 2 = 6	6 − 2 = 4	9 + 2 = ?
5 + 2 = 7	7 − 2 = 5	2 + 7 = ?
6 + 2 = 8	8 − 2 = 6	2 + 2 = ?
7 + 2 = 9	9 − 2 = 7	2 + 5 = ?
8 + 2 = 10	10 − 2 = 8	1 + 2 = ?
9 + 2 = 11	11 − 2 = 9	2 + 8 = ?

4. Take 2 from each of the following numbers:

11, 9, 7, 5, 8, 6, 3, 10, 4.

Copy and complete:

5.	6.	7.	8.
2 + 1	11 − 9	2 + 4	4 + 1 − 2
1 + 4	3 − 1	1 + 8	9 + 2 − 1
2 + 6	9 − 8	2 + 7	11 − 2 + 1
1 + 9	7 − 5	8 + 2	8 + 2 + 1
3 + 2	5 − 3	2 + 9	9 − 2 + 1
2 + 5	8 − 8	1 + 7	7 − 2 − 2
4 + 2	6 − 4	7 + 1	5 − 2 + 2
1 + 3	10 − 9	2 + 8	6 − 1 − 2

9. To find a number equal to two or more numbers, is to **Add**.

10. The number found by adding is called the **Sum**.

LESSON 9.

1. Three squirrels are on the ground, and 3 are on the fence. How many are there in all?

How many are 3 and 3?

2. Of 6 squirrels 3 are on the ground, and the others on the fence. How many are there on the fence?

How many are 6 less 3?

3. In one length of fence there are 3 rails and in another 4. How many in both?

How many are 4 and 3? 3 and 4?

4. In two lengths of fence there are 7 rails. In one of the lengths there are 4; how many in the other length?

How many are 7 less 4? 7 less 3?

5. How many trees are 3 trees and 5 trees?

How many are 3 and 5? 5 and 3?

6. How many are 8 trees less 5 trees?

How many are 8 less 5? 8 less 3?

7. Make on your slate 3 marks; make 6 more. How many marks have you now made?

How many are 3 and 6? 6 and 3?

8. Make on your slate 9 marks. Rub out 6 of them, and how many will remain?

How many are 9 less 6? 9 less 3?

9. Jane had 3 cents, and her aunt gave her 7 more; how many had she then?

How many are 3 and 7? 7 and 3?

10. Harry went to the store with 10 cents, and bought a pencil for 7 cents; how much had he left?

How many are 10 less 7? 10 less 3?

LESSON 10.

Recite the tables:

1.	2.	3.
1 + 3 = 4	4 − 3 = 1	3 + 7 = ?
2 + 3 = 5	5 − 3 = 2	9 + 3 = ?
3 + 3 = 6	6 − 3 = 3	3 + 4 = ?
4 + 3 = 7	7 − 3 = 4	8 + 3 = ?
5 + 3 = 8	8 − 3 = 5	3 + 6 = ?
6 + 3 = 9	9 − 3 = 6	3 + 3 = ?
7 + 3 = 10	10 − 3 = 7	3 + 5 = ?
8 + 3 = 11	11 − 3 = 8	1 + 3 = ?
9 + 3 = 12	12 − 3 = 9	3 + 2 = ?

4. Take 3 from each of the following numbers:

6, 9, 11, 5, 10, 8, 7, 4, 12.

5.	6.	7.	8.
3 + 1	3 + 5	3 + 4	2 + 7
2 + 5	4 + 3	2 + 8	7 + 2
6 + 3	2 + 4	3 + 7	3 + 8
2 + 9	7 + 3	8 + 3	9 + 3

9.	10.	11.	12.
12 − 3	5 − 3	8 − 3	4 + 3 − 2
9 − 2	10 − 3	10 − 2	9 + 2 − 3
10 − 1	6 − 2	6 + 1	8 − 3 + 2
7 − 3	5 − 2	8 − 2	11 − 2 + 3
8 + 4	2 + 5	7 + 3	10 − 3 + 2
6 − 3	6 + 3	12 − 2	6 − 2 − 2
7 + 4	11 − 3	8 + 3	12 − 4 + 3

Write and add:

13	14.	15.	16.	17.	18.
4	7	2	6	9	8
2	1	2	3	2	3
3	4	3	4	4	4

LESSON 11.

1. George has caught 4 trout and 1 perch. How many fishes has he caught?

How many are 4 and 1? 1 and 4?

2. George has 5 fishes; 1 is a perch and the others are trout. How many are trout?

How many are 5 less 1? 5 less 4?

3. On a plate were 4 eggs; 2 more were put with them; how many are there now on the plate?

How many are 4 and 2? 2 and 4?

4. There are on a plate 6 eggs. If 2 should be taken away, how many would remain on the plate?

How many are 6 less 2? 6 less 4?

5. On the plate there are 4 eggs, and on the table 3 more. How many are there in all?

How many are 4 and 3? 3 and 4?

6. On a plate were 7 eggs, but 3 have been taken away. How many remain on the plate?

How many are 7 less 3? 7 less 4?

7. Without the thumbs you have 4 fingers on your right hand and 4 on your left. How many on both hands?

How many are 4 and 4?

8. Hold up 8 fingers. Close 4, and how many will be up?

How many are 8 less 4?

9. Make on your slate 4 marks. Make 5 more. How many marks are 4 marks and 5 more?

How many are 4 and 5? 5 and 4?

10. Make on your slate 9 marks. Rub out 4, and how many remain?

How many are 9 less 4? 9 less 5?

LESSON 12.

Recite the tables:

1.	2.	3.
1 + 4 = 5	5 − 4 = 1	4 + 5 = ?
2 + 4 = 6	6 − 4 = 2	3 + 4 = ?
3 + 4 = 7	7 − 4 = 3	4 + 6 = ?
4 + 4 = 8	8 − 4 = 4	4 + 4 = ?
5 + 4 = 9	9 − 4 = 5	4 + 1 = ?
6 + 4 = 10	10 − 4 = 6	9 + 4 = ?
7 + 4 = 11	11 − 4 = 7	4 + 7 = ?
8 + 4 = 12	12 − 4 = 8	2 + 4 = ?
9 + 4 = 13	13 − 4 = 9	4 + 8 = ?

4. Take 4 from each of the following numbers:

12, 7, 9, 5, 14, 10, 6, 8, 13, 11.

Copy and complete:

5.	6.	7.	8.
2 + 4	4 + 4	3 + 5	3 + 7
5 + 3	6 + 3	3 + 4	7 + 4
1 + 4	4 + 5	2 + 8	2 + 8
4 + 7	6 + 4	4 + 6	9 + 4
13 − 4	8 − 4	12 − 3	10 − 2
9 − 3	9 − 3	11 − 4	11 − 2
7 − 4	9 − 4	8 − 3	6 − 4
5 − 1	10 − 4	7 − 3	4 − 4

Write and add:

9.	10.	11.	12.	13.	14.
5	3	8	7	3	9
	9	4	3	4	3

LESSON 13.

1. Ann has in her basket 5 apples, and John has 1 in his hand. How many have both?

How many are 5 and 1? 1 and 5?

2. Ann had 6 apples, but gave 1 to her brother. How many had she then?

How many are 6 less 1? 6 less 5?

3. Lucy is 5 years old, and Ann is 2 years older. How old is Ann?

How many are 5 and 2? 2 and 5?

4. Ann is 7 years old, and her sister is 2 years younger. How old is her sister?

How many are 7 less 2? 7 less 5?

5. Five children are together. If 3 more should join them, how many will there be?

How many are 3 and 2? 2 and 3?

6. If 8 children should be together and 3 should go away, how many would remain?

How many are 5 less 3? 5 less 5?

7. A cat caught one day 3 mice and another day 4 mice. How many in both days?

How many are 3 and 4? 4 and 5?

8. A cat caught in two days 9 mice. She caught one day 4. How many did she catch the other day?

How many are 9 less 4? 9 less 5?

9. Minnie gave 2 5-cent pieces for a ribbon; how many cents did it cost?

How many are 5 and 5?

10. James is 10 years old, and his brother is 5 years younger. How much older is he than his brother?

How many are 10 less 5?

Write and add:

11.	12.	13.	14.	15.	16.
7	4	6	2	5	7
4	5	3	4	5	5

17.	18.	19.	20.	21.	22.
3	4	2	6	5	5
2	3	5	3	4	5
1	2	3	2	4	4

LESSON 14.

Recite the tables:

1.	2.	3.
1 + 5 = 6	6 − 5 = 1	5 + 6 = ?
2 + 5 = 7	7 − 5 = 2	5 + 5 = ?
3 + 5 = 8	8 − 5 = 3	5 + 4 = ?
4 + 5 = 9	9 − 5 = 4	1 + 5 = ?
5 + 5 = 10	10 − 5 = 5	5 + 3 = ?
6 + 5 = 11	11 − 5 = 6	7 + 5 = ?
7 + 5 = 12	12 − 5 = 7	5 + 9 = ?
8 + 5 = 13	13 − 5 = 8	2 + 5 = ?
9 + 5 = 14	14 − 5 = 9	5 + 8 = ?

4. Take 5 from each of the following numbers:

7, 10, 8, 11, 6, 13, 9, 15, 12, 14.

Copy and complete:

5.	6.	7.	8.
3 + 5	5 + 5	6 − 3	4 − 2
6 + 4	7 + 4	5 − 1	6 − 4
2 + 5	5 + 3	7 − 4	5 − 3
5 + 7	9 + 5	8 − 5	9 − 5
14 − 4	10 − 5	9 − 2	13 − 4
9 + 3	12 − 4	5 − 5	12 − 3
13 − 5	0 + 3	6 + 5	6 + 2
6 + 3	8 − 6	8 + 4	7 + 4

9. To take one number from another is to **Subtract.**

10. The number found by subtracting one number from another is called the **Difference.**

LESSON 15.

1. In one flock are 6 birds, and in another 3. How many in both?

How many are 6 and 3? 3 and 6?

2. In one flock are 6 birds, and in another 3. How many more in one flock than in the other?

How many are 6 less 3?

3. Six men are together; if they should be joined by 4 more, how many will there then be together?

How many are 6 and 4? 4 and 6?

4. Ten men were together, but 4 have gone away How many remain?

How many are 10 less 4? 10 less 6?

5. Make on your slate 6 dots. Make 5 more. How many marks have you now made?

How many are 6 and 5? 5 and 6?

6. Make on your slate 11 dots. Rub out 5, and how many will remain?

How many are 11 less 5? 11 less 6?

7. A man caught at one time 6 fish and at another 6 more. How many did he catch in all?

How many are 6 and 6?

8. A man had 12 fish, but has sold 6. How many has he left?

How many are 12 less 6?

9. In 2 flocks are 7 birds, and in another 6. How many in all?

How many are 7 and 6? 6 and 7?

10. In three flocks there are 13 birds. In one there are 6. How many are there in the others?

How many are 13 less 6? 13 less 7?

	11.	12.	13.	14.	15.	16.
From	7	6	6	7	9	13
take	2	3	2	6	4	5

Add:

17.	18.	19.	20.	21.	22.
3	6	2	6	5	6
4	5	9	4	3	4
5	3	3	5	2	1

LESSON 16.

Recite the tables:

1. +	2. +	3. +
1 + 6 = 7	7 − 6 = 1	6 + 4 = ?
2 + 6 = 8	8 − 6 = 2	9 + 6 = ?
3 + 6 = 9	9 − 6 = 3	6 + 6 = ?
4 + 6 = 10	10 − 6 = 4	7 + 6 = ?
5 + 6 = 11	11 − 6 = 5	6 + 3 = ?
6 + 6 = 12	12 − 6 = 6	8 + 6 = ?
7 + 6 = 13	13 − 6 = 7	6 + 5 = ?
8 + 6 = 14	14 − 6 = 8	2 + 6 = ?
9 + 6 = 15	15 − 6 = 9	6 + 1 = ?

4. Subtract 6 from each of the following numbers:

8, 15, 10, 9, 16, 14, 12, 11, 13.

Copy on your slate and complete:

5.	6.	7.	8.
4 + 6	8 + 6	7 + 4	13 − 8 + 5
2 + 4	6 + 6	9 − 5	5 + 7 − 3
6 + 5	7 + 4	6 + 5	14 − 6 + 2
7 + 6	9 + 6	11 − 4	9 + 3 − 6
4 − 2	10 − 6	3 + 7	13 − 2 − 9
6 − 5	13 − 5	8 − 5	6 + 8 + 1
3 − 3	11 − 4	9 + 3	9 + 3 + 2
7 − 4	15 − 6	12 − 7	14 − 8 − 5

9. Make on your slate 15 marks. Make 5 mor
Count the marks now made.

many are 15 and 1? Make for sixteen *1*

11. How many are 16 and 1? Make for *seventeen 17.*

12. How many are 17 and 1? Make for *eighteen 18.*

13. How many are 18 and 1? Make for *nineteen 19.*

14. How many are 19 and 1? Make for *twenty 20.*

15. For sixteen, seventeen, eighteen, nineteen, twenty, make XVI, XVII, XVIII, XIX, XX.

16. Write and read:

18, 16, 17, 20, 19.

LESSON 17.

1. On a table are 4 peaches, and on a plate 7 more. How many on both the table and the plate?

How many are 4 and 7? 7 and 4?

2. How many peaches are 11 peaches less 7 peaches?

How many are 11 less 7? 11 less 4?

3. Make on your slate 5 m's. Make 7 more, and how many have you made in all?

How many are 5 and 7? 7 and 5?

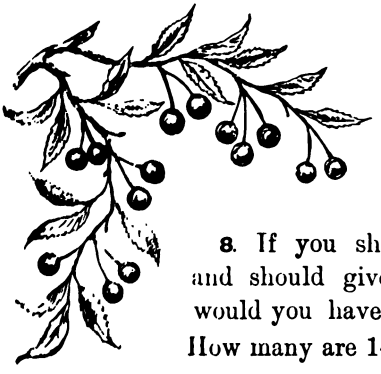
4. Make on your slate 12 n's. Rub out 7, and how many remain?

5. On one plate are 6 peaches, and on another 7. How many are there on both plates?

How many are 6 and 7? 7 and 6?

6. George had 13 peaches, but he gave his brother 7. How many had he left?

How many are 13 less 7? 13 less 6?



7. On one branch are 7 cherries, and on another 7 more. How many are there on both?

How many are 7 and 7?

8. If you should have 14 cherries and should give away 7, how many would you have left?

How many are 14 less 7?

9. Eight cherries and 7 cherries are how many cherries?

How many are 8 and 7? 7 and 8?

10. Mary had 15 cherries, and gave away 7. How many had she left?

How many are 15 less 7? 15 less 8?

	11.	12.	13.	14.	15.	16.
To	5	8	7	6	4	7
add	2	6	5	1	1	2
				3	2	1
	17.	18.	19.	2	0	3
From	7	14	12	1	5	1
take	2	6	5	2	3	4

LESSON 18.

Recite the tables:

1.	2.	3.
1 + 7 = 8	8 − 7 = 1	7 + 9 = ?
2 + 7 = 9	9 − 7 = 2	5 + 7 = ?
3 + 7 = 10	10 − 7 = 3	7 + 4 = ?
4 + 7 = 11	11 − 7 = 4	6 + 7 = ?
5 + 7 = 12	12 − 7 = 5	7 + 3 = ?
6 + 7 = 13	13 − 7 = 6	2 + 7 = ?
7 + 7 = 14	14 − 7 = 7	7 + 7 = ?
8 + 7 = 15	15 − 7 = 8	1 + 7 = ?
9 + 7 = 16	16 − 7 = 9	7 + 8 = ?

4. Subtract 7 from each of the following numbers:

9, 17, 13, 8, 10, 14, 11, 16, 12.

Copy and complete:

5.	6.	7.	8.
4 + 7	8 + 6	10 − 7	12 − 5 + 3
7 + 6	3 + 4	14 − 6	13 − 7 − 3
5 + 7	7 + 7	12 − 5	11 − 4 + 5
8 + 5	9 + 7	15 − 7	16 − 7 − 4
4 + 5	8 + 7	16 − 5	17 − 5 + 5

	9.	10.	11.	12.	13.	14.
To	8	9	7	5	6	8
add	5	7	6	2	0	1
				0	2	1
	15.	16.	17.	3	2	0
From	13	16	13	1	3	5
take	5	7	6	4	5	4

LESSON 19.

1. One girl and 8 boys are coasting. How many are coasting?

How many are 1 and 8? 8 and 1?

2. Nine children are coasting; 1 of them is a girl. How many are boys?

How many are 9 less 1? 9 less 8?

3. Two boys are skating, and 8 more are coasting. How many boys are there at play?

How many are 2 and 8? 8 and 2?

4. Ten boys are at play; 2 of them are skating, and the others coasting. How many are coasting?

How many are 10 less 2? 10 less 8?

5. Three girls are skating; should 8 others join them, how many would there be?

How many are 3 and 8? 8 and 3?

6. Eleven girls were skating, but 8 have gone home. How many remain?

How many are 11 less 8? 11 less 3?

7. Four birds are on a tree; 8 others are on the ground. How many are there in all?

How many are 4 and 8? 8 and 4?

8. Twelve birds were on a tree, but 4 of them have gone. How many remain on the tree?

How many are 12 less 8? 12 less 4?

9. Make on your slate 5 figures. Make 8 more. How many figures have you now made?

How many are 5 and 8? 8 and 5?

10. Make 13 letters on your slate. Rub out 5, and how many remain?

How many are 13 less 5? 13 less 8?

	11.	12.	13.	14.	15.	16.
From	7	8	9	10	13	12
take	3	5	6	3	5	6

Add:

17.	18.	19.	20.	21.	22.
4	5	3	4	3	5
2	0	3	5	3	5
1	3	1	3	4	3
2	2	2	2	4	1
3	3	2	1	2	2
4	5	3	5	2	4

LESSON 20.

Recite the tables:

1.	2.	3.
1 + 8 = 9	9 − 8 = 1	8 + 3 = ?
2 + 8 = 10	10 − 8 = 2	2 + 8 = ?
3 + 8 = 11	11 − 8 = 3	8 + 7 = ?
4 + 8 = 12	12 − 8 = 4	8 + 8 = ?
5 + 8 = 13	13 − 8 = 5	8 + 9 = ?
6 + 8 = 14	14 − 8 = 6	6 + 8 = ?
7 + 8 = 15	15 − 8 = 7	8 + 5 = ?
8 + 8 = 16	16 − 8 = 8	4 + 8 = ?
9 + 8 = 17	17 − 8 = 9	8 + 1 = ?

4. Subtract 8 from each of the following numbers

14, 18, 12, 16, 13, 9, 15, 10.

Copy and complete:

5.	6.	7.	8.
4 + 8	8 + 2	13 − 8	10 − 8 + 4
7 + 5	9 − 6	11 − 7	16 − 7 + 5
8 + 6	7 + 8	10 − 5	14 − 6 − 3
3 + 8	8 − 7	15 − 8	17 − 8 + 2
8 − 6	9 + 4	8 + 5	15 + 2 − 9

	9.	10.	11.	12.	13.	14.	15.
From	15	13	16	17	7	6	8
take	8	7	8	8	2	0	1
					2	2	3
				Add	1	3	4

LESSON 21.

1. A fence has 3 rails down, and 9 in place. How many are there in all?

How many are 3 and 9? 9 and 3?

2. A fence has 12 rails; 3 are down and the others are in place. How many are in place?

How many are 12 less 3? 12 less 9?

3. Four pigs are in a field, and 9 others have gone into a meadow. How many are there in all?

How many are 4 and 9? 9 and 4?

4. Thirteen pigs were in a field, and all but 4 have gone out. How many have gone out?

How many are 13 less 4? 13 less 9?

5. In a pool are 5 lilies in bloom and 9 in bud. How many are there in all?

How many are 5 and 9? 9 and 5?

6. In a pool are 14 lilies; 5 are in bloom and the others in bud. How many are in bud?

How many are 14 less 5? 14 less 9?

7. Make on your slate 6 crosses. Make 9 more, and how many have you made in all?

How many are 6 and 9? 9 and 6?

8. Make on your slate 15 rings. Rub out 6 of them, and how many will remain?

How many are 15 less 6? 15 less 9?

9. James had 9 cents in his bank. He earned 7 more doing errands. How much money had he then?

How many are 7 and 9? 9 and 7?

10. A cow gives 16 quarts of milk every day. If she gives 7 quarts in the morning, how many does she give at night?

How many are 16 less 7? 16 less 9?

11. Maud goes into the country and stays 8 days with her aunt and 9 days with her grandma. How many days is she in the country?

How many are 8 and 9? 9 and 8?

12. In a game of ball one club makes 17 runs and the other makes 9 runs. How many runs does one club make more than the other?

How many are 17 less 9? 17 less 8?

	13.	**14.**	**15.**		**16.**	**17.**	**18.**
From	11	12	16		3	5	6
take	7	9	8		1	2	1
					2	3	2
	19.	**20.**	**21.**		6	3	0
From	14	13	15		2	1	2
	9	8	9	Add	1	0	4

LESSON 22.

Recite the tables:

1.	2.	3.
1 + 9 = 10	10 − 9 = 1	9 + 9 = ?
2 + 9 = 11	11 − 9 = 2	6 + 9 = ?
3 + 9 = 12	12 − 9 = 3	9 + 7 = ?
4 + 9 = 13	13 − 9 = 4	4 + 9 = ?
5 + 9 = 14	14 − 9 = 5	9 + 3 = ?
6 + 9 = 15	15 − 9 = 6	1 + 9 = ?
7 + 9 = 16	16 − 9 = 7	9 + 5 = ?
8 + 9 = 17	17 − 9 = 8	8 + 9 = ?
9 + 9 = 18	18 − 9 = 9	9 + 2 = ?

4. Subtract 9 from each of the following numbers:

12, 19, 17, 14, 18, 15, 10, 13, 11.

Copy and complete:

5.	6.	7.	8.
2 + 8	11 − 9	10 − 6	14 − 9 + 5
3 + 9	13 − 6	13 − 8	12 − 7 + 6
9 + 8	17 − 8	16 − 7	18 − 8 + 3
9 + 9	16 − 9	15 − 9	17 − 9 + 4
7 + 7	7 + 8	12 − 7	7 + 5 − 6

	9.	10.	11.	12.	13.	14.	15.
From	12	14	16	17	8	7	4
take	7	8	7	5	2	2	2
					0	3	3

	16.	17.	18.				
From	15	16	18		3	1	2
take	8	8	9	Add	3	2	2
					4	5	

LESSON 23.

1. In a bird's nest there were 5 eggs, but a crow robbed the nest of 3 eggs. How many were left?

2. In one nest there are 2 eggs, and in another 5. How many in both?

3. Jane paid for needles 5 cents and for thread 6 cents. How much did she pay for both?

4. How much more did she pay for the thread than for the needles?

5. A boy bought some paper for 8 cents and gave in payment 10 cents. How much change should he receive?

6. James is 9 years old and Peter is 7 years older. How old is Peter?

7. John is 8 years old and Henry is 9 years old. What is the sum of their ages?

8. From a tree on which were 17 peaches, 8 have have fallen off. How many remain on the tree?

9. If you should have 14 cents and pay away 5, how many would you have left?

10. How many are $7 + 5$? $8 - 3$? $9 + 7$?

Copy and complete:

11.	12.	13.	14.
$8 + 3$	$13 - 8$	$9 + 9$	$6 + 9 - 4$
$9 - 2$	$15 - 7$	$14 - 7$	$8 + 7 - 6$
$7 + 6$	$11 - 9$	$10 + 7$	$18 - 8 + 5$
$9 - 7$	$9 + 5$	$12 - 8$	$16 - 9 + 6$
$8 + 5$	$7 + 8$	$8 + 5$	$17 - 8 + 4$
$6 + 4$	$14 + 5$	$8 + 4$	$19 - 9 - 5$
$13 - 7$	$20 - 10$	$6 + 6$	$6 + 4 + 3$
$5 + 5$	$3 + 11$	$16 + 6$	$8 + 7 + 3$
$16 - 7$	$8 - 2$	$13 + 6$	$16 - 7 - 5$
$18 - 9$	$9 + 6$	$12 - 6$	$7 + 7 + 6$

15.	16.	17.	18.	19.	20.
4	8	7	8	6	1
3	1	7	3	4	3
0	2	1	0	2	1
1	0	1	2	0	2
3	5	0	1	2	3
Add 5	4	4	6	5	8

LESSON 24.

1. Some children are at play; 2 are boys and 3 are girls. How many are there of them?

2. If Edward should ride 9 minutes and his sister 5, how many minutes would both ride?

3. The children were allowed 15 minutes for play. They have been at play 8 minutes. How many more minutes have they?

4. Eighteen pears were growing on a tree, but 9 have fallen off. How many remain?

5. There were 7 sheep in a field and 5 more have been put with them. How many are there now in the field?

6. Ellen had 16 cents, but has spent 8. How many has she left?

Copy and complete:

7.	8.	9.	10.
9 + = 14	14 − = 9	6 + = 11	10 − = 4
7 + = 13	13 − = 7	3 + = 12	16 − = 7
4 + = 12	12 − = 8	2 + = 10	11 − = 5
8 + = 16	16 − = 8	7 + = 13	17 − = 9
9 + = 17	8 − = 3	9 + = 11	16 − = 9

	11.	12.	13.	14.	15.	16.
From	17	10	15	4	8	7
take	9	9	6	0	2	2
				3	2	4

	17.	18.	19.			
From	13	12	16	2	3	1
take	6	8	9	Add 4	4	4

LESSON 25.

1. On one rose-bush there are 10 roses and on another 9. How many are there on both bushes?

2. How many more roses are there on one bush than on another?

3. On two bushes were 19 roses; if 7 should be taken from one bush and 2 from another, how many would be left?

4. Edward spent 3 cents for an orange, 5 cents for candy, 4 cents for a top, and had 8 cents left. How many cents had he at first?

5. How many are 19 less 7 + 2? How many are 3 + 3 + 2?

6. Mary had 8 cents; her mother gave her 6 more, and she spent 4. How many had she then?

7. A farmer has in one pasture 7 sheep, in another 3, and in a third 6. How many has he in the three pastures?

8. How many are 8 + 6 − 4? How many are 7 + 3 + 6?

9. One hen had 8 chickens and another had 9; but a hawk caught 4 of them. How many had the two hens then?

How many are:

10. 6 hats and 2 hats?
11. 7 boys and 5 boys?
12. 9 pens less 2 pens?
13. 3 dogs and 9 dogs?
14. 15 sheep less 8 sheep?
15. 9 books and 8 books?
16. 16 caps less 8 caps?
17. 19 cents less 9 cents?

18.	19.	20.
6 + 4 − 3	9 + 3 + 6	16 − 8 + 1
7 + 5 − 4	8 + 4 + 4	15 − 7 + 3
5 + 8 − 6	10 − 8 + 3	18 − 9 + 6
3 + 7 + 9	12 − 7 + 2	19 − 7 + 5
+ 4 − 3	16 − 9 + 5	6 + 8 + 9

LESSON 26.

How many are:

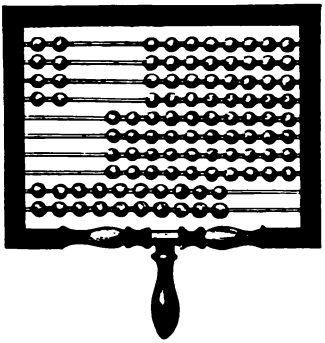
1.	2.	3.	4.
8 + 3?	6 + 0?	9 − 3?	10 − 7?
2 + 7?	4 + 8?	8 − 5?	14 − 8?
6 + 3?	0 + 5?	7 − 0?	16 − 7?
9 + 5?	3 + 9?	9 − 9?	18 − 9?
7 + 7?	9 + 9?	8 − 1?	20 − 10?

Copy and complete:

5.	6.	7.
9 − 4 + 2	10 − 8 + 4	6 + 9 − 3
8 + 6 − 4	15 − 7 + 6	4 − 2 + 7
9 − 3 + 5	10 − 6 + 5	7 + 2 − 6
4 + 6 − 3	13 − 6 + 3	8 − 6 + 5
5 + 9 − 6	15 − 2 − 3	16 − 7 − 6
14 − 9 + 6	6 + 7 + 4	8 + 8 − 6
13 + 6 − 8	17 − 8 + 9	9 + 4 − 3
16 − 8 + 4	11 + 5 − 3	7 + 8 − 5
8 − 5 + 9	3 + 3 + 4	18 − 7 − 4

	8.	9.	10.	11.	12.	13.
From	11	13	10	8	7	9
take	9	8	9	1	3	1
				0	2	2
	14.	15.	16.	2	0	3
From	19	16	17	1	1	2
take	9	9	8	5	3	3

LESSON 27.



1. Count the balls, or beads, on the two upper wires of the numeral frame.

2. How many tens on the upper wire? On the two upper wires?

3. How many tens are twenty? Make on your slate the figures for twenty.

4. Count with twenty, one, two, and so on to three tens.

5. Write on your slate:

For two tens and one, or *twenty-one* 21
For two tens and two, or *twenty-two* 22
For two tens and three, or *twenty-three* 23
For two tens and four, or *twenty-four* 24
For two tens and five, or *twenty-five* 25
For two tens and six, or *twenty-six* 26
For two tens and seven, or *twenty-seven* . . . 27
For two tens and eight, or *twenty-eight* 28
For two tens and nine, or *twenty-nine* 29
For three tens, or *thirty* 30

6. Make on your slate for

Twenty-one . . .	XXI	Twenty-six . . .	XXVI
Twenty-two . .	XXII	Twenty-seven . .	XXVII
Twenty-three . .	XXIII	Twenty-eight .	XXVIII
Twenty-four . .	XXIV	Twenty-nine . .	XXIX
Twenty-five . . .	XXV	Thirty	XXX

7. When two figures are written side by side, the figure on the right expresses **Ones.**

8. When two figures are written side by side, the figure on the left expresses **Tens.**

9. Write and read:

23, 21, 25, 22, 26,
24, 27, 28, 30, 29.

	10.	11.	12.	13.	14.	15.
	21	20	23	11	15	20
Add	6	8	7	4	1	3
				3	3	1
	16.	17.	18.	0	4	2
	19	24	22	1	0	1
Add	8	5	6	Add 4	5	3

LESSON 28.

1. Write on your slate for:

Three tens and one, or *thirty-one* *31*
Three tens and two, or *thirty-two* *32*
Three tens and three, or *thirty-three* *33*

Three tens and four, or *thirty-four* 34
Three tens and five, or *thirty-five* 35
Three tens and six, or *thirty-six* 36
Three tens and seven, or *thirty-seven* 37
Three tens and eight, or *thirty-eight* 38
Three tens and nine, or *thirty-nine* 39
Four tens, or *forty* 40
Four tens and one, or *forty-one* 41
Four tens and two, or *forty-two* 42
Four tens and three, or *forty-three* 43
Four tens and four, or *forty-four* 44
Four tens and five, or *forty-five* 45
Four tens and six, or *forty-six* 46
Four tens and seven, or *forty-seven* 47
Four tens and eight, or *forty-eight* 48
Four tens and nine, or *forty-nine* 49
Five tens, or *fifty* 50

2. Make on your slate for:

Thirty-one . . . XXXI	Forty-one . . . XLI
Thirty-two . . XXXII	Forty-two . . . XLII
Thirty-three . . XXXIII	Forty-three . . . XLIII
Thirty-four . . XXXIV	Forty-four . . . XLIV
Thirty-five . . XXXV	Forty-five . . . XLV
Thirty-six . . . XXXVI	Forty-six . . . XLVI
Thirty-seven . . XXXVII	Forty-seven . . . XLVII
Thirty-eight . XXXVIII	Forty-eight . . XLVIII
Thirty-nine . . XXXIX	Forty-nine . . . XLIX
. XL	Fifty L

3. Write and read:

32,	*34,*	*42,*	*37,*	*40,*
41,	*38,*	*31,*	*46,*	*47,*
33,	*35,*	*36,*	*39,*	*49,*
37,	*43,*	*45,*	*48,*	*50.*

LESSON 29.

1. How many birds do you see in the picture?
Once 1 is how many?
How many times 1 in 1?

2. How many flowers are 1 flower and 1 more?
How many are 1 + 1? How many are 2 times 1?
How many times 1 in 2?

3. How many flowers are 3 times 1 flower?

How many are 1 + 1 + 1? How many are 3 times 1? How many times 1 in 3?

4. How many flowers are 4 times 1 flower?

How many are 1 + 1 + 1 + 1? How many are 4 times 1?

How many times 1 in 4?

5. How many fingers have you on one hand?

How many are 1 + 1 + 1 + 1 + 1? How many are 5 times 1?

How many times 1 in 5?

6. The sign × means **time** or **times**. Thus,

3 × 1 is read 3 times 1.

7. Copy on your slate, and add the numbers joined by +.

1	1 × 1 = 1
1 + 1	2 × 1 = 2
1 + 1 + 1	3 × 1 = 3
1 + 1 + 1 + 1	4 × 1 = 4
1 + 1 + 1 + 1 + 1	5 × 1 = 5
1 + 1 + 1 + 1 + 1 + 1	6 × 1 = 6
1 + 1 + 1 + 1 + 1 + 1 + 1	7 × 1 = 7
1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	8 × 1 = 8
1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	9 × 1 = 9
1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	10 × 1 = 10

8. Recite the table: 1 time 1 is 1; 2 times 1 are 2; and so on.

9. How many times 1 in 4? 6? 9?

10. How many are 33 − 7? 41 − 8? 19 − 5? 40 − 7? 49 − 8? 24 − 5?

LESSON 30.

1. If you have given you 1 pear every day for 6 days, how many pears will you receive?

How many are 6 times 1? How many times 1 in 6?

2. If 7 children should each have 1 cent, how many cents would they all have?

How many are 7 times 1? How many times 1 in 7?

3. If you should sell 8 peaches at 1 cent each, how many cents would you get?

How many are 8 times 1? How many 1's in 8?

4. Ella gave each of 9 girls an apple. How many did she give them in all?

How many are 9 times 1? How many 1's in 9?

5. If you receive 1 merit for every perfect lesson, how many merits will you receive for 10 perfect lessons?

6. Taking a number one or more times is called **Multiplying**.

7. Finding how many times one number is in another is called **Dividing**.

8. The sign ÷ means **divided by**. Thus,

3 ÷ 1 is read 3 divided by 1.

9. Copy and recite the table:

$1 \div 1 = 1$	$6 \div 1 = 6$
$2 \div 1 = 2$	$7 \div 1 = 7$
$3 \div 1 = 3$	$8 \div 1 = 8$
$4 \div 1 = 4$	$9 \div 1 = 9$
$5 \div 1 = 5$	$10 \div 1 = 10$

10.	**11.**	**12.**		**13.**	**14.**	**15.**
33	17	21	From	39	24	30
Add 6	7	9	take	6	7	9

LESSON 31.

1. How many horns has a cow? How many are once 2 horns?

Once 2 are how many? How many times 2 in 2?

2. How many hands have 2 boys?

How many are 2 + 2? How many are 2 times 2? How many times 2 in 2?

3. How many ears have 3 kittens?

How many are 2 + 2 + 2? How many are 3 times 2?

4. How many fingers are 4 times 2 fingers?

How many are 2 + 2 + 2 + 2? How many are 4 times 2?

5. How many fingers are 5 times 2 fingers?

How many are 2 + 2 + 2 + 2? How many are 5 times 2?

6. Copy on your slate, and add the numbers joined by the sign +.

2	1 × 2 = 2
2 + 2	2 × 2 = 4
2 + 2 + 2	3 × 2 = 6
2 + 2 + 2 + 2	4 × 2 = 8
2 + 2 + 2 + 2 + 2	5 × 2 = 10
2 + 2 + 2 + 2 + 2 + 2	6 × 2 = 12
2 + 2 + 2 + 2 + 2 + 2 + 2	7 × 2 = 14
2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	8 × 2 = 16
2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	9 × 2 = 18
2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2	10 × 2 = 20

7. Recite the table: 1 time 2 is 2; 2 times 2 are 4; and so on.

8. What will 6 oranges cost at 2 cents each?

9.	10.	11.		12.	13.	14.
11	13	21	From	42	18	35
4	0	3	take	7	9	6
2	7	1				
1	3	6		15.	16.	17.
5	4	2	From	23	43	49
Add 6	3	5	take	6	8	7

LESSON 32.

1. Rufus has 2 marbles and Ernest has 7 times as many. How many has Ernest?

How many are 7 times 2? How many times 2 in 14?

2. Ernest has 14 peaches. How many times 2 peaches has he?

14 is how many times 2? 2 times what number make 14?

3. How much will 8 oranges cost at 2 cents each?

How many are 8 times 2? How many times 2 in 16?

4. At 2 cents each, how many oranges can you buy with 16 cents?

16 is how many times 2? 2 times what number make 16?

5. John has 2 books and Edwin has 9 times as many. How many has Edwin?

How many are 9 times 2? How many times 2 in 18?

6. Edwin has 18 books. How many times 2 books has he?

18 is how many times 2? 2 times what number make 18?

7. At 2 cents each, how much must be paid for 10 pencils?

How many are 10 times 2? How many times 2 in 20?

8. Make on your slate 20 marks. How many times 2 marks have you made?

20 is how many times 2? 2 times what number make 20?

9. Copy and recite the table:

$2 \div 2 = 1$	$12 \div 2 = 6$
$4 \div 2 = 2$	$14 \div 2 = 7$
$6 \div 2 = 3$	$16 \div 2 = 8$
$8 \div 2 = 4$	$18 \div 2 = 9$
$10 \div 2 = 5$	$20 \div 2 = 10$

	10.	**11.**	**12.**	**13.**	**14.**	**15.**
Multiply	7	5	6	8	5	9
by	1	2	1	2	1	2

16.	**17.**	**18.**	**19.**	**20.**	**21.**
17	23	29	25	27	24
4	5	4	6	3	2
9	4	2	3	4	5
8	8	6	8	9	8
3	3	4	2	8	5

LESSON 33.

1. A fox caught 3 chickens a day for 2 days. How many did he catch in both days?

How many are 3 + 3? How many are 2 times 3?

How many times 3 in 6?

2. If 2 pencils cost 6 cents, what is the cost of 1 pencil?

6 is how many times 3? 3 times what number make 6?

3. A hen has 3 times 3 chickens. How many chickens has she?

How many are 3 + 3 + 3? How many are 3 times 3?
How many times 3 in 9?

4. A hen has 9 chickens. How many must a fox take of them each day to get them all in 3 days?

9 is how many times 3? 3 times what number make 9?

5. Make on your slate 3 marks 4 times. How many marks have you made?

How many are 3 + 3 + 3 + 3? How many are 4 times 3?
How many times 3 in 12?

6. How many oranges at 3 cents each can you get for 12 cents?

12 is how many times 3? 3 times what number make 12?

7. If one postage-stamp costs 3 cents, how many cents will 5 cost?

How many are 3 + 3 + 3 + 3 + 3? How many are 5 times 3?

8. Mary divided 15 apples among 5 of her class. How many did she give to each?

15 is how many times 3? 3 times what number make 15?

9. If you read 3 pages in your reader every day, how many will you read in 6 days?

How many are 6 times 3? 3 times what number make 18?

10. Copy on your slate, and add the numbers joined by the sign +.

3	$1 \times 3 = 3$
3 + 3	$2 \times 3 = 6$
3 + 3 + 3	$3 \times 3 = 9$
3 + 3 + 3 + 3	$4 \times 3 = 12$
3 + 3 + 3 + 3 + 3	$5 \times 3 = 15$
3 + 3 + 3 + 3 + 3 + 3	$6 \times 3 = 18$
3 + 3 + 3 + 3 + 3 + 3 + 3	$7 \times 3 = 21$
3 + 3 + 3 + 3 + 3 + 3 + 3 + 3	$8 \times 3 = 24$
3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3	$9 \times 3 = 27$
3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3	$10 \times 3 = 30$

11. Recite the table, 1 time 3 is 3; 2 times 3 are 6; and so on.

12.	**13.**	**14.**		**15.**	**16.**	**17.**
22	30	33	Multiply	6	7	8
3	7	1	by	3	2	3
4	1	2				
0	2	4		**18.**	**19.**	**20.**
6	0	7	Multiply	4	5	9
Add 5	8	3	by	2	1	3

LESSON 34.

1. How many cherries in 6 clusters of 3 cherries each?

How many are 6 times 3? How many times 3 in 18?

2. How many clusters of 3 cherries each will make 18 cherries?

18 is how many times 3? 3 times what number make 18?

3. At 3 dollars a week, how many dollars can a boy earn in 7 weeks?

How many are 7 times 3? How many times 3 in 21?

4. With 24 cents, how many 3-cent postage-stamps can you buy?

24 is how many times 3? 3 times what number is 24?

5. Sarah has 3 books, and Ella has 9 times as many. How many has Ella?

How many are 9 times 3? How many times 3 in 27?

6. Ella has 27 books, or 3 times as many as Sarah has. How many has Sarah?

27 is how many times 3? 3 times what number make 27?

7. Make on your slate 3 marks 10 times. How many marks have you made?

How many are 10 times 3? How many times 3 in 30?

8. If you should save 3 cents a day, how many days will it take you to save 30 cents?

30 is how many times 3? 3 times what number make 30?

2. Copy and recite the table:

$3 \div 3 = 1$	$18 \div 3 = 6$
$6 \div 3 = 2$	$21 \div 3 = 7$
$9 \div 3 = 3$	$24 \div 3 = 8$
$12 \div 3 = 4$	$27 \div 3 = 9$
$15 \div 3 = 5$	$30 \div 3 = 10$

	10.	11.	12.	13.	14.	15.
Multiply	2	5	7	6	10	9
by	3	3	3	2	3	3

LESSON 35.

Recite the tables:

1.	2.
2 times 1 are 2	2 in 2, once
2 times 2 are 4	2 in 4, 2 times
2 times 3 are 6	2 in 6, 3 times
2 times 4 are 8	2 in 8, 4 times
2 times 5 are 10	2 in 10, 5 times
2 times 6 are 12	2 in 12, 6 times
2 times 7 are 14	2 in 14, 7 times
2 times 8 are 16	2 in 16, 8 times
2 times 9 are 18	2 in 18, 9 times
2 times 10 are 20	2 in 20, 10 times

3. Multiply each number in the next line by 2:

8, 10, 6, 5, 4, 1, 3, 9, 2, 7.

4. Divide each number in the next line by 2:

10, 16, 12, 2, 4, 14, 20, 6, 8, 18.

Recite the tables:

5.	6.
3 times 1 are 3	3 in 3, once
3 times 2 are 6	3 in 6, 2 times
3 times 3 are 9	3 in 9, 3 times
3 times 4 are 12	3 in 12, 4 times
3 times 5 are 15	3 in 15, 5 times
3 times 6 are 18	3 in 18, 6 times
3 times 7 are 21	3 in 21, 7 times
3 times 8 are 24	3 in 24, 8 times
3 times 9 are 27	3 in 27, 9 times
3 times 10 are 30	3 in 30, 10 times

7. Multiply each of the following numbers by 3:

3, 4, 8, 10, 5, 6, 9, 7, 2, 1.

8. Divide each of the following numbers by 3:

27, 12, 15, 30, 21, 6, 3, 18, 24, 9.

Copy and complete:

9.	10.	11.
3×4	2×6	$8 \times 2, + 2$
$18 \div 2$	$21 \div 3$	$16 \div 2, - 3$
3×5	3×7	$9 \times 3, + 5$
$24 \div 3$	$20 \div 2$	$3 \times 3, + 2$
3×9	3×8	$21 \div 3, - 3$
$24 \div 8$	6×3	$8 \div 2, \times 3$
$15 \div 3$	$18 \div 6$	$5 \times 3, - 6$
$27 \div 3$	$8 + 9$	$6 \times 3, + 5$
3×6	$6 + 7$	$9 \times 3, - 8$

LESSON 36.

1. How many legs have 2 dogs?

How many are 4 + 4? How many are 2 times 4?

2. A blacksmith has 8 horseshoes; how many horses can he shoe?

8 is how many times 4? 4 times what number make 8?

3. How many wheels have 3 wagons?

How many are 4 + 4 + 4? How many are 3 times 4?

4. At 4 cents each, how many balls can be bought for 12 cents?

[illegible] how many times 4? 4 times what number [illegible]?

5. How many legs have 4 horses?

How many are 4 + 4 + 4 + 4? How many are 4 times 4?

6. James has 16 doves, and this is 4 times as many as Arthur has. How many has Arthur?

16 is how many times 4? 4 times what number make 16?

7. If 4 bales are a wagon-load, how many bales are 5 wagon-loads?

How many are 4 + 4 + 4 + 4 + 4? How many are 5 times 4?

8. If one wagon will carry 4 bales, how many wagons will carry 20 bales?

20 is how many times 4? 4 times what number is 20?

9. Copy on your slate, and add the numbers joined by the sign +.

4	$1 \times 4 = 4$
4 + 4	$2 \times 4 = 8$
4 + 4 + 4	$3 \times 4 = 12$
4 + 4 + 4 + 4	$4 \times 4 = 16$
4 + 4 + 4 + 4 + 4	$5 \times 4 = 20$
4 + 4 + 4 + 4 + 4 + 4	$6 \times 4 = 24$
4 + 4 + 4 + 4 + 4 + 4 + 4	$7 \times 4 = 28$
4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	$8 \times 4 = 32$
4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	$9 \times 4 = 36$
4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	$10 \times 4 = 40$

10. Recite the table: 1 time 4 is 4; 2 times 4 are 8; and so on.

LESSON 37.

1. On a shelf in a pantry there are 3 mice, and on the floor 3 times as many. How many are there on the floor?

2. How many times 3 mice are 9 mice?

3. At 2 cents each, what will 4 pencils cost?

4. At 3 cents each, how many tops can you buy for 15 cents?

5. Emma has 2 books, and her sister has 6 times as many. How many has her sister?

6. John earns 3 dollars a week. In how many weeks can he earn 21 dollars?

7. How many are 4 times 3? 5 times 2? 3 times 3? 6 times 2?

8. A school of 30 scholars is divided into 3 classes *of the same size*. How many in each class?

9.	10.	11.		12.	13.	14.
5	10	10	From	20	30	45
5	10	10	take	10	10	10
5	10	10				
4	4	10		15.	16.	17.
1	6	5	Multiply	7	6	9
Add 5	5	5	by	4	4	4

LESSON 38.

1. How many feet have 5 lambs?

How many are 5 times 4? How many times 4 in 20?

2. How many sheep at 4 dollars each can be bought for 20 dollars?

20 is how many times 4? 4 times what number make 20?

3. How many wheels have 6 wagons?

How many are 6 times 4? How many times 4 in 24?

4. How many hats at 4 dollars each can be bought for 24 dollars?

24 is how many times 4? 4 times what number make 24?

5. Make on your slate 4 marks 7 times. How many marks have you made?

How many are 7 times 4? How many 4's in 28?

6. At 4 cents each, how many oranges can be bought for 28 cents?

28 is how many times 7? 4 times what number make 28?

7. John is 4 years old, and his father is 8 times as old. How old is his father?

How many are 8 times 4? How many times 4 in 32?

8. Lucy has 4 books, and her sister 9 times as many. How many has her sister?

How many are 9 times 4? How many times 4 in 36?

9. Emma has 36 books, which is 4 times as many as Mary has. How many has Mary?

36 is how many times 4? 4 times what number is 36?

10. At 4 cents each, what will 10 pears cost?

How many are 10 times 4? How many times 4 in 40?

11. How many yards of cloth at 4 dollars a yard can be bought for 40 dollars?

40 is how many times 4? 4 times what number is 40?

12. Copy and recite the table:

$4 \div 4 = 1$	$24 \div 4 = 6$
$8 \div 4 = 2$	$28 \div 4 = 7$
$12 \div 4 = 3$	$32 \div 4 = 8$
$16 \div 4 = 4$	$36 \div 4 = 9$
$20 \div 4 = 5$	$40 \div 4 = 10$

LESSON 39.

1. One nickel is 5 cents. How many cents in 2 nickels?

How many are 5 + 5? How many are 2 times 5?

2. At 5 cents each, how many pencils can be bought with 10 cents?

10 is how many times 5? 5 times what number make 10?

3. Five doves are on the cot, 5 are on the barn, and 5 more are flying. How many are there in all?

How many are 5 + 5 + 5? How many are 3 times 5?

4. If you divide 15 apples among 5 boys, how many will each receive?

15 is how many times 5? 5 times w[illegible]r make 15?

5. Five birds are on a fence in one place, 5 on a fence in another place, 5 on the ground in one group, and 5 in another. How many are there in all?

How many are 5 + 5 + 5 + 5? How many are 4 times 5?

6. Twenty birds are how many times 5 birds?

5 times what number make 20?

7. Copy on your slate, and add the numbers joined by the sign +.

5	$1 \times 5 = 5$
5 + 5	$2 \times 5 = 10$
5 + 5 + 5	$3 \times 5 = 15$
5 + 5 + 5 + 5	$4 \times 5 = 20$
5 + 5 + 5 + 5 + 5	$5 \times 5 = 25$
5 + 5 + 5 + 5 + 5 + 5	$6 \times 5 = 30$
5 + 5 + 5 + 5 + 5 + 5 + 5	$7 \times 5 = 35$
5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	$8 \times 5 = 40$
5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	$9 \times 5 = 45$
5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	$10 \times 5 = 50$

8. Recite the table: 1 time 5 is 5; 2 times 5 are 10; and so on.

9. Ellen has 5 cents, and her sister has 5 times as many. How many has her sister?

How many are 5 times 5? How many times 5 in 25?

10.	11.	12.		13.	14.	15.
13	20	20	From	25	33	29
7	6	10	take	10	10	10
0	4	10				
3	7	5		16.	17.	18.
7	3	1	Multiply	10	10	10
Add 5	4	3	by	4	3	5

LESSON 40.

1. How many fingers are there on 6 hands?

How many are 6 times 5? How many times 5 in 30?

2. At 5 cents each, how many balls can be bought with 30 cents?

30 is how many times 5? 5 times what number make 30?

3. Make on your slate 5 marks 7 times. How many marks have you made?

How many are 7 times 5? How many times 5 in 35?

4. If you should get 35 merits in 7 days, how many would that be a day?

35 is how many times 5? 5 times what number is 35?

5. At 5 dollars each, what will 8 tons of coal cost?

How many are 8 times 5? How many times 5 in 40?

6. How many tons of coal at 5 dollars a ton can be bought with 40 dollars?

40 is how many times 5? 5 times what number is 40?

7. A boy took from a tree 5 peaches, and left on the tree 9 times as many. How many did he leave on the tree?

How many are 9 times 5? How many times 5 in 45?

8. If 45 peaches should be divided equally among 9 boys, how many would each receive?

45 is how many times 5? 5 times what number is 45?

9. At 5 cents each, what will 10 cakes cost?

How many are 10 times 5? How many 5's in 50?

10. How many cakes at 5 cents each can be bought for 50 cents?

50 is how many 5's? 5 times what number is 50?

11. Copy and recite the table:

$5 \div 5 = 1$	$30 \div 5 = 6$
$10 \div 5 = 2$	$35 \div 5 = 7$
$15 \div 5 = 3$	$40 \div 5 = 8$
$20 \div 5 = 4$	$45 \div 5 = 9$
$25 \div 5 = 5$	$50 \div 5 = 10$

LESSON 41.

Recite the tables:

1.	2.
4 times 1 are 4	4 in 4, once
4 times 2 are 8	4 in 8, 2 times
4 times 3 are 12	4 in 12, 3 times
4 times 4 are 16	4 in 16, 4 times
4 times 5 are 20	4 in 20, 5 times
4 times 6 are 24	4 in 24, 6 times
4 times 7 are 28	4 in 28, 7 times
4 times 8 are 32	4 in 32, 8 times
4 times 9 are 36	4 in 36, 9 times
times 10 are 40	4 in 40, 10 times

3. Multiply each of the following numbers by 4:

9, 10, 2, 8, 7, 4, 6, 3, 5, 1.

4. Divide each of the following numbers by 4:

16, 24, 8, 4, 20, 32, 36, 28, 40, 12.

Recite the tables:

5.	6.
5 times 1 are 5	5 in 5, once
5 times 2 are 10	5 in 10, 2 times
5 times 3 are 15	5 in 15, 3 times
5 times 4 are 20	5 in 20, 4 times
5 times 5 are 25	5 in 25, 5 times
5 times 6 are 30	5 in 30, 6 times
5 times 7 are 35	5 in 35, 7 times
5 times 8 are 40	5 in 40, 8 times
5 times 9 are 45	5 in 45, 9 times
5 times 10 are 50	5 in 50, 10 times

7. Multiply each of the following numbers by 5:

10, 1, 4, 8, 9, 3, 7, 5, 2, 6.

8. Divide each of the following numbers by 5:

50, 35, 45, 40, 25, 5, 10, 15, 30, 20

Copy and complete:

9.	10.	11
5 × 6	5 ⁄ 5	32 · 4 ⁄
20 ÷ 4	45 ÷ 5	27 3 ⁄
4 × 4	2 ⁄ 4	24 · ⁄ 6
30 ÷ 5	50 ÷ 5	18 —

LESSON 42.

1. How many feet have 5 horses?

2. A horse trotted 21 miles in 3 hours; how many miles was that an hour?

3. John's horse can trot 8 miles in an hour; a car moving 5 times as fast goes how many miles in an hour?

4. At 2 dollars each, how many hats can be bought for 18 dollars?

5. Jane is 5 years old, and her aunt is 7 times as old. How old is her aunt?

6. John has 35 cents, which is 5 times as much as his brother's money. How much is his brother's money?

7. At 3 cents each, how much will 9 pencils cost?

8. How many oranges at 4 cents each can be bought for 40 cents?

9. What will 6 pairs of boots cost at 3 dollars a pair?

10. How many tons of coal at 5 dollars a ton can be bought for 50 dollars?

11. The sign) between two numbers means *in*. Thus,

3) 9, means 3 in 9, or 9 divided by 3.

12.	13.	14.	15.	16.	17.
2) 8	3) 6	4) 8	2) 6	5) 10	4) 12
4) 16	3) 21	5) 30	4) 36	4) 28	5) 50
3) 27	4) 32	5) 35	2) 16	4) 24	5) 40

Copy and complete:

18.	19.	20.
8×4	2×3	$9 \times \quad = 45$
$24 \div 4$	$18 \div 3$	$\times 6 = 30$
9×5	$20 \div 4$	$2 \times 2 \times 3 =$
$36 \div 4$	6×4	$4 \times 2 \times 5 =$
$27 \div 3$	$28 \div 4$	$36 = 6 \times$
3×5	4×9	$28 = \quad \times 7$
$35 \div 5$	$36 \div 6$	$24 = \quad \times 8$
4×8	$40 \div 4$	$45 = 5 \times$
$9 \div 3$	6×3	$4 = 16 \div$

LESSON 43.

1. Fifty-one is written . . *51*, or LI.
2. Fifty-two is written . . *52*, or LII.
3. Fifty-three is written . . *53*, or LIII.
4. Fifty-four is written . . *54*, or LIV.
5. Fifty-five is written . . *55*, or LV.
6. Fifty-six is written . . *56*, or LVI.
7. Fifty-seven is written . . *57*, or LVII.
8. Fifty-eight is written . . *58*, or LVIII.
9. Fifty-nine is written . . *59*, or LIX.
10. Sixty is written . . *60*, or LX.
11. Sixty-one is written . . *61*, or LXI.
12. Sixty-two is written . . *62*, or LXII.
13. Sixty-three is written . . *63*, or LXIII.
14. Sixty-four is written . . *64*, or LXIV.
15. Sixty-five is written . . *65*, or LXV.
16. Sixty-six is written . . *66*, or LXVI.
17. Sixty-seven is written . . *67*, or LXVII.
18. Sixty-eight is written . . *68*, or LXVIII.
19. Sixty-nine is written . . *69*, or LXIX.
20. Seventy is written . . *70*, or LXX.

21. In 52, which figure expresses ones, and which ten In 57? In 67? In 59? In 68? In 62? In 56?

22. Make on your slate the letters standing for

63, 57, 44, 65, 51, 69, 56, 49.

LESSON 44.

1. What will 6 one-cent postage-stamps cost?

How many times 1 is 6? How many times 1 in 6?

2. At 6 cents each, what will 2 rulers cost?

How many are 6 + 6? How many are 2 times 6?

3. If 2 rulers cost 12 cents, how much will 1 ruler cost?

12 is how many times 6? 6 times what number make 12?

4. Joseph has 6 cents, and his brother has 3 times as many. How many has his brother?

How many are 6 + 6 + 6? How many are 3 times 6?

5. If 18 pears are divided equally among 3 boys, how many will each receive?

18 is how many times 6? 6 times what number make 18?

6. A bee has 6 legs; how many legs have 4 bees?

How many are 6 + 6 + 6 + 6? How many are 4 times 6?

7. At 6 dollars a ton, how many tons of coal can be bought for 24 dollars?

24 is how many times 6? 6 times what number make 24?

8. Copy on your slate, and add the numbers joined by the sign +.

6	$1 \times 6 = 6$
$6 + 6$	$2 \times 6 = 12$
$6 + 6 + 6$	$3 \times 6 = 18$
$6 + 6 + 6 + 6$	$4 \times 6 = 24$
$6 + 6 + 6 + 6 + 6$	$5 \times 6 = 30$
$6 + 6 + 6 + 6 + 6 + 6$	$6 \times 6 = 36$
$6 + 6 + 6 + 6 + 6 + 6 + 6$	$7 \times 6 = 42$
$6 + 6 + 6 + 6 + 6 + 6 + 6 + 6$	$8 \times 6 = 48$
$6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6$	$9 \times 6 = 54$
$6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6$	$10 \times 6 = 60$

9. Recite the table: 1 time 6 is 6; 2 times 6 are 12 and so on.

	10.	11.	12.	13.	14.	15.
Multiply	9	4	7	8	5	10
by	6	6	6	6	6	6

16.	17.	18.	19.	20.	21.
6) 54	6) 24	6) 42	6) 48	6) 30	6) 60

LESSON 45.

1. A bee has 6 legs. How many legs have 6 bees? How many are 6 times 6? How many times 6 in 36?

2. Make on your slate 36 marks. How many times 6 marks have you made?

36 is how many times 6? 6 times what number is 36?

3. At 6 cents each, what will 7 combs cost?

How many are 7 times 6? How many times 6 in 42?

4. How many combs at 6 cents each can be bought for 42 cents?

42 is how many times 6? 6 times what number make 42?

5. If a boy can earn 6 dollars a week, how much can he earn in 8 weeks?

How many are 8 times 6? How many 6's in 48?

6. Eight boys divided equally among themselves 48 apples. How many did each have?

48 is how many times 6? 6 times what number make 48?

7. At 6 cents each, how much must be paid for 9 spools of silk?

How many are 9 times 6? How many 6's in 54?

8. If you should work 6 days a week, how many weeks would you work in 54 days?

54 is how many times 6? 6 times what number make 54?

9. Copy and recite the table:

$6 \div 6 = 1$	$36 \div 6 = 6$
$12 \div 6 = 2$	$42 \div 6 = 7$
$18 \div 6 = 3$	$48 \div 6 = 8$
$24 \div 6 = 4$	$54 \div 6 = 9$
$30 \div 6 = 5$	$60 \div 6 = 10$

LESSON 46.

1. Mary has taken from a tree 7 pears each day for 2 days. How many has she taken?

How many are 7+7? How many are 2 times 7?

2. If 14 pears are equally divided between 2 girls, how many will each receive?

14 is how many times 7? 7 times what number make 14?

3. At 7 cents each, what will 3 balls cost?

How many are 7+7+7? How many are 3 times 7?

4. How many pounds of fish at 7 cents a pound can be bought for 21 cents?

21 is how many times 7? 7 times what number make 21?

5. Make on your slate 4 times 7 marks. How many marks have you made?

How many are 7+7+7+7? How many are 4 times 7?

6. At 7 cents a yard, how many yards of cloth can be bought for 28 cents?

28 is how many times 7? 7 times what number make 28?

7. A man divided some peaches among 7 boys, giving them 5 peaches apiece. How many peaches did he divide among them?

How many are 5 times 7? How many times 7 in 35?

8. Copy on your slate, and add the numbers joined by the sign +.

7	$1 \times 7 = 7$
$7 + 7$	$2 \times 7 = 14$
$7 + 7 + 7$	$3 \times 7 = 21$
$7 + 7 + 7 + 7$	$4 \times 7 = 28$
$7 + 7 + 7 + 7 + 7$	$5 \times 7 = 35$
$7 + 7 + 7 + 7 + 7 + 7$	$6 \times 7 = 42$
$7 + 7 + 7 + 7 + 7 + 7 + 7$	$7 \times 7 = 49$
$7 + 7 + 7 + 7 + 7 + 7 + 7 + 7$	$8 \times 7 = 56$
$7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7$	$9 \times 7 = 63$
$7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7$	$10 \times 7 = 70$

9. Recite the table: 1 time 7 is 7; 2 times 7 are 14; and so on.

	10.	11.	12.	13.	14.	15.
Multiply	8	6	5	3	10	9
by	7	7	7	7	7	7

16.	17.	18.	19.	20.	21.
7) 56	7) 42	7) 35	7) 21	7) 70	7) 63

LESSON 47.

1. In 1 week there are 7 days. How many days are there in 6 weeks?

How many are 6 times 7? How many times 7 in 42?

2. How many weeks in 42 days?

42 is how many times 7? 7 times what number make 42?

3. At 7 cents a pint, how many pints of nuts can be bought for 42 cents?

42 is how many times 7? 7 times what number make 42?

4. At 7 dollars a ton, what will 7 tons of coal cost?

How many are 7 times 7? How many times 7 in 49?

5. How many barrels of flour at 7 dollars a barrel can be bought for 49 dollars?

49 is how many times 7? 7 times what number make 49?

6. At 7 cents each, what will 8 spools of cotton cost?

How many are 8 times 7? How many times 7 in 56?

7. At 7 dollars a week, in how many weeks can 56 dollars be earned?

56 is how many times 7? 7 times what number is 56?

8. At the rate of 7 miles an hour, how far will a horse go in 9 hours?

How many are 9 times 7? How many times 7 in 63?

9. At the rate of 7 quarts a day, in how many days can a boy pick 63 quarts of berries?

63 is how many times 7? 7 times what number is 63?

10. Make on your slate 7 marks 10 times. How many marks have you made?

How many are 10 times 7? How many 7's in 70?

11. If 7 men divide 70 dollars among them, how many dollars will there be to each man?

70 is how many times 7? 7 times what number is 70?

12. Copy and recite the table:

$7 \div 7 = 1$	$42 \div 7 = 6$
$14 \div 7 = 2$	$49 \div 7 = 7$
$21 \div 7 = 3$	$56 \div 7 = 8$
$28 \div 7 = 4$	$63 \div 7 = 9$
$35 \div 7 = 5$	$70 \div 7 = 10$

LESSON 48.

Recite the tables:

1.	2.
6 times 1 are 6	6 in 6, once
6 times 2 are 12	6 in 12, 2 times
6 times 3 are 18	6 in 18, 3 times
6 times 4 are 24	6 in 24, 4 times
6 times 5 are 30	6 in 30, 5 times
6 times 6 are 36	6 in 36, 6 times
6 times 7 are 42	6 in 42, 7 times
6 times 8 are 48	6 in 48, 8 times
6 times 9 are 54	6 in 54, 9 times
6 times 10 are 60	6 in 60, 10 times

3. Multiply each of the following numbers by 6

6, 7, 9, 4, 10, 8, 3, 1, 5, 2.

4. Divide each of the following numbers by 6:

48, 18, 54, 12, 36, 24, 6, 30, 42, 54.

5	6
7 times 1 are 7	7 in 7, once
7 times 2 are 14	7 in 14, 2 times
7 times 3 are 21	7 in 21, 3 times
7 times 4 are 28	7 in 28, 4 times
7 times 5 are 35	7 in 35, 5 times
7 times 6 are 42	7 in 42, 6 times
7 times 7 are 49	7 in 49, 7 times
7 times 8 are 56	7 in 56, 8 times
7 times 9 are 63	7 in 63, 9 times
7 times 10 are 70	7 in 70, 10 times

7. Multiply each of the following numbers by 7:

8, 10, 9, 4, 1, 3, 6, 5, 2, 7.

8. Divide each of the following numbers by 7:

35, 56, 42, 7, 14, 49, 70, 21, 28, 63.

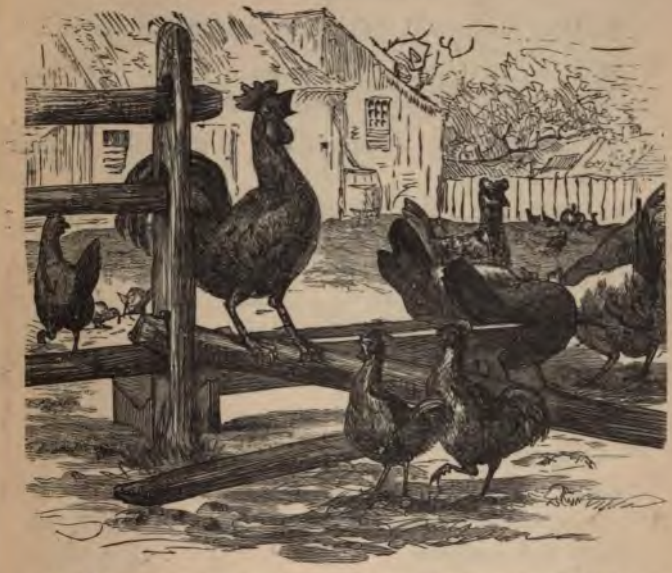
9. How many are 6 times 3? 7 times 7? 6 times 5? 7 times 6? 6 times 10?

10. How many times 6 in 54? 7 in 28? 6 in 42? 7 in 63? 6 in 60?

11. How many 6's in 3×8? How many 4's in 6×6?

12. How many 3's in 4×6? How many 6's in 4×9?

LESSON 49.



1. How many eggs will 6 hens lay in a week if they lay 4 eggs each?

2. At 6 dimes each, what will 7 fowls cost?

3. At 5 dimes each, how many fowls can be bought for 35 dimes?

4. How many marbles are 8 times 6 marbles?

5. How many spools of thread at 6 cents a spool can you buy for 54 cents?

6. If you are in school 5 hours a day, how many hours are you in school in 10 days?

7. If a boat will carry 7 persons, how many such boats will carry 63 persons?

8. How much will 9 fish-lines cost at 7 cents each?

9. If 6 boys can be seated on a settee, how many settees must there be to seat a school of 60 boys?

10. How many are 7 times 10? 6 times 3? 7 times 7? 5 times 10?

11. How many times 3 in 30? 6 in 48? 5 in 50? 7 in 70?

12.	13.	14.	15.	16.	17.
11	13	20	From 25	31	44
10	16	15	take 6	8	7
13	10	7			
7	3	3	18.	19.	20.
4	1	2	From 36	42	29
Add 3	4	5	take 16	12	18

Copy and complete:

21.	22.	23.
6×8	$63 = 7 \times$	$8 \times 7, + 3 =$
$49 \div 7$	$49 = \quad \times 7$	$6 \times 4, + 5 =$
7×6	$42 = 6 \times$	$8 \times 3, - 7 =$
$36 \div 6$	$5 \times \quad = 40$	$7 \times 9, - 7 =$
7×8	$4 \times \quad = 28$	$4 \times 8, - 5 =$
$54 \div 9$	$\times 6 = 54$	$3 \times 9, + 4 =$
6×6	$7 \times \quad = 63$	$8 \times 5, - 6 =$
$60 \div 10$	$70 = 10 \times$	$7 \times 2, - 5 =$
6×9	$36 = \quad 9 \times$	$42 \div 6, \times 4 =$
$70 \div 10$	$45 = \quad \times 9$	$28 \div 4, \times 7 =$

LESSON 50.

How many are

1. 6×4 apples?
2. 7×8 cents?
3. 5×7 knives?
4. 4×4 eggs?
5. 6×6 days?
6. 4×8 pints?
7. 4×10 words?
8. 6×5 trees?
9. 6×8 years?
10. 3×9 miles?
11. 3×7 inches?
12. 7×9 weeks?

13. Which is greater, 5×9 or 6×8? 6×6 or 7×5? 4×8 or 3×10? Seven 2's or three 5's?

14. Eddie paid 4 cents apiece for 8 oranges and had 7 cents left; how much money had he at first?

15. How many times do you come to school in 5 weeks?

16. How many times 6 are 8 times 3? 10 times 3?

17. What number must you add to 7 to make 19? 16? 18? 14? 12? 21?

18. Write on your slate 15; add 16, subtract 4; divide by 9.

19. Write 24; add 16 and 8; subtract 23; divide by 5?

20. $18 + 16 + 15 + 9 + 7 = ?$

21. $48 - 7 - 6 - 5 - 9 = ?$

22. $24 + 8, - 2, \div 3 = ?$

23. $45 + 15, - 13, - 12, \div 7 = ?$

24. How many are 7 and 9? 27 and 9? 37 and 9? 47 and 9? 57 and 9? 67 and 9?

25. How many are 12 less 5? 22 less 5? 42 less 5? 52 less 5? 62 less 5? 72 less 5?

LESSON 51.

1. Seventy-one is written . . *71*, or LXXI.
2. Seventy-two is written . . *72*, or LXXII.
3. Seventy-three is written . . *73*, or LXXIII.
4. Seventy-four is written . . *74*, or LXXIV.
5. Seventy-five is written . *75*, or LXXV.
6. Seventy-six is written . . *76*, or LXXVI.
7. Seventy-seven is written . . *77*, or LXXVII.
8. Seventy-eight is written . . *78*, or LXXVIII.
9. Seventy-nine is written . . *79*, or LXXIX.
10. Eighty is written . . *80*, or LXXX.
11. Eighty-one is written . . *81*, or LXXXI.
12. Eighty-two is written . . *82*, or LXXXII.
13. Eighty-three is written . . *83*, or LXXXIII.
14. Eighty-four is written . . *84*, or LXXXIV.
15. Eighty-five is written . . *85*, or LXXXV.
16. Eighty-six is written . . *86*, or LXXXVI.
17. Eighty-seven is written . . *87*, or LXXXVII.
18. Eighty-eight is written . . *88*, or LXXXVIII.
19. Eighty-nine is written . . *89*, or LXXXIX.
20. Ninety is written . . *90*, or XC.
21. In 78, which figure expresses ones, and which tens? In 87? In 76? In 79? In 88?
22. Write and read: *87*, *77*, *83*, *78*, *85*, *79*.
23. Make on your slate the letters standing for *75*, *84*, *71*, *86*, 90, 73, 80, 89.

LESSON 52.

1. What will 2 quarts of milk cost at 8 cents a quart?

How many are 8 + 8? How many are 2 times 8?

2. If 2 pounds of rice cost 16 cents, how much does one pound cost?

16 is how many times 8? 8 times what number make 16?

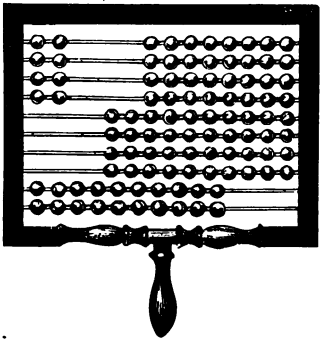
3. James is 8 years old, and his uncle is 3 times as old. How old is his uncle?

How many are 8 + 8 + 8? How many are 3 times 8?

4. A man who is 24 years old is 3 times as old as James. How old is James?

24 is how many times 8? 8 times what number make 24?

5. A numeral frame has 8 balls on each of 4 wires. How many has it on the wires?



How many are 8 + 8 + 8 + 8? How many are 4 times 8?

6. How many barrels of flour at 8 dollars each can be bought for 32 dollars?

32 is how many times 8? 8 times what number is 32?

7. [illegible]

8	1 × 8 = 8
8 + 8	2 × 8 = 16
8 + 8 + 8	3 × 8 = 24
8 + 8 + 8 + 8	4 × 8 = 32
8 + 8 + 8 + 8 + 8	5 × 8 = 40
8 + 8 + 8 + 8 + 8 + 8	6 × 8 = 48
8 + 8 + 8 + 8 + 8 + 8 + 8	7 × 8 = 56
8 + 8 + 8 + 8 + 8 + 8 + 8 + 8	8 × 8 = 64
8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8	9 × 8 = 72
8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8	10 × 8 = 80

8. [illegible] the table: 1 time 8 is 8; 2 times 8 are 16; and so on.

9. How many are 7 times 8? 4 times 8? 9 times 8?

10. How many are 3 times 8? 10 times 8? 9 times 8?

	11.	12.	13.		14.	15.	16.
	41	64	45	Multiply	7	9	8
Add	38	17	26	by	8	8	8

	17.	18.	19.	20.	21.	22.
From	79	81	71	8) 56	8) 72	8) 64
take	38	64	26			

	23.	24.	25.	26.	27.	28.
	26	18	11	26	33	26
	13	10	25	13	15	36
	11	31	23	31	12	23
Add	15	26	14	16	22	14

LESSON 53.

1. Make on your slate 8 marks 5 times. How many marks have you made?

How many are 5 times 8? How many times 8 in 40?

2. Among how many boys can you divide 40 peaches if you give them 8 peaches apiece?

40 is how many times 8? 8 times what number is 40?

3. At 8 cents a yard, what will 6 yards of calico cost?

How many are 6 times 8? How many times 8 in 48?

4. How many yards of calico at 8 cents a yard can you buy for 48 cents?

48 is how many times 8? 8 times what number is 48?

5. At 8 dollars a barrel, what will 7 barrels of flour cost?

How many are 7 times 8? How many times 8 in 56?

6. How many pounds of sugar at 8 cents a pound can be bought for 56 cents?

56 is how many times 8? 8 times what number is 56?

7. How many grapes in 8 clusters of 8 grapes each?

How many are 8 times 8? How many 8's in 64?

8. At 8 cents a pound, how many pounds of rice can be bought for 64 cents?

64 is how many times 8? 8 times what number is 64?

9. In a school there are 9 classes and 8 pupils in a class. How many pupils are there in the school?

How many are 9 times 8? How many times 8 in 72?

10. If I divide 72 cents among 9 children, how many will each receive?

72 is how many times 8? 8 times what number is 72?

11. In a garden are 10 vines with 8 clusters of grapes on each. How many clusters are there in all?

How many are 10 times 8? How many times 8 in 80?

12. At 8 cents each, how many melons can be bought for 80 cents?

80 is how many times 8? 8 times what number is 80?

13. Copy and recite the table:

$8 \div 8 = 1$	$48 \div 8 = 6$
$16 \div 8 = 2$	$56 \div 8 = 7$
$24 \div 8 = 3$	$64 \div 8 = 8$
$32 \div 8 = 4$	$72 \div 8 = 9$
$40 \div 8 = 5$	$80 \div 8 = 10$

LESSON 54.

1. James has 9 marbles, and his brother has twice as many. How many has his brother?

How many are 9 + 9? How many are 2 times 9?

2. If you have 18 cents, how many times 9 cents have you?

18 is how many times 9? 9 times what number make 18?

3. George is 9 years old, and his uncle is 3 times as old. How old is his uncle?

How many are 9 + 9 + 9? How many are 3 times 9?

4. Ellen divided 27 pears equally among 3 playmates. How many did each receive?

27 is how many times 9? 9 times what number is 27?

5. At 9 cents each, what will 4 penholders cost?

How many are 9 + 9 + 9 + 9? How many are 4 times 9?

6. How many quarts of berries at 9 cents a quart can be bought for 36 cents?

36 is how many times 9? 9 times what number is 36?

7. At 9 cents a pound, what will 5 pounds of starch cost?

How many are 5 times 9? How many times 9 in 45?

8. Copy on your slate, and add the numbers joined by the sign +.

9	$1 \times 9 = 9$
$9 + 9$	$2 \times 9 = 18$
$9 + 9 + 9$	$3 \times 9 = 27$
$9 + 9 + 9 + 9$	$4 \times 9 = 36$
$9 + 9 + 9 + 9 + 9$	$5 \times 9 = 45$
$9 + 9 + 9 + 9 + 9 + 9$	$6 \times 9 = 54$
$9 + 9 + 9 + 9 + 9 + 9 + 9$	$7 \times 9 = 63$
$9 + 9 + 9 + 9 + 9 + 9 + 9 + 9$	$8 \times 9 = 72$
$9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9$	$9 \times 9 = 81$
$9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9$	$10 \times 9 = 90$

9. Recite the table: once 9 is 9; 2 times 9 are 18; and so on.

10. How many are 5 times 9? 8 times 9? 10 times 9?

11. How many are 6 times 9? 7 times 9? 3 times 9?

12.	13.	14.		15.	16.	17.
21	13	24	Multiply	7	4	9
22	17	13	by	9	9	9
19	24	25				
10	12	16	**18.**	**19.**		**20.**
Add 15	18	12	9) 63	9) 36		9) 81

21.	22.
$6 \times 8, + 8 = ?$	$7 \times 4, - 7 = ?$
$7 \times 9, - 5 = ?$	$6 \times 5, - 6 = ?$
$9 \times 4, \div 6 = ?$	$3 \times 3, \times 3 = ?$
$7 \times 6, + 4 = ?$	$32 \div 4, \times 5 = ?$
$8 \times 3, - 7 = ?$	$45 \div 9, \times 7 = ?$

LESSON 55.

1. If Fred rides 9 miles a day for 6 days, how far does he ride?

How many are 6 times 9? How many times 9 in 54?

2. If Fred rides 9 miles a day, in how many days will he ride 54 miles?

54 is how many times 9? 9 times what number is 54?

3. How many apples can you give each of 5 boys from 45 apples?

45 is how many times 9? 9 times what number is 45?

4. What will 7 barrels of flour cost at 9 dollars a barrel?

How many are 7 times 9? How many times 9 in 63?

5. If a man can earn 9 dollars a week, in how many weeks can he earn 63 dollars?

63 is how many times 9? 9 times what number is 63?

6. How many books are 8 times 9 books?

How many are 8 times 9? How many times 9 in 72?

7. At 9 hours a day, in how many days will a man work 72 hours?

72 is how many times 9? 9 times what number is 72?

8. If a cow gives 9 quarts of milk a day, how many quarts will she give in 9 days?

How many are 9 times 9? How many times 9 in 81?

9. John has 81 blocks. If he puts them into 9 equal piles, how many will there be in a pile?

81 is how many times 9? 9 times what number is 81?

10. If a horse will eat 9 quarts of oats in a day, how many will he eat in 10 days?

How many are 10 times 9? How many times 9 in 90?

11. If you recite 90 lessons in 9 weeks, how many lessons is that a week?

90 is how many times 9? 9 times what number is 90?

12. Copy and recite the table:

$9 \div 9 = 1$	$54 \div 9 = 6$
$18 \div 9 = 2$	$63 \div 9 = 7$
$27 \div 9 = 3$	$72 \div 9 = 8$
$36 \div 9 = 4$	$81 \div 9 = 9$
$45 \div 9 = 5$	$90 \div 9 = 10$

LESSON 56.

Recite the tables:

1.	2.
8 times 1 are 8	8 in 8, once
8 times 2 are 16	8 in 16, 2 times
8 times 3 are 24	8 in 24, 3 times
8 times 4 are 32	8 in 32, 4 times
8 times 5 are 40	8 in 40, 5 times
8 times 6 are 48	8 in 48, 6 times
8 times 7 are 56	8 in 56, 7 times
8 times 8 are 64	8 in 64, 8 times
8 times 9 are 72	8 in 72, 9 times
8 times 10 are 80	8 in 80, 10 times

3. Multiply each of the following numbers by 8:

3, 6, 9, 5, 4, 1, 8, 7, 10, 2.

4. Divide each of the following numbers by 8:

72, 56, 40, 8, 32, 48, 16, 80, 24, 64

5.	6.
9 times 1 are 9	9 in 9, once
9 times 2 are 18	9 in 18, 2 times
9 times 3 are 27	9 in 27, 3 times
9 times 4 are 36	9 in 36, 4 times
9 times 5 are 45	9 in 45, 5 times
9 times 6 are 54	9 in 54, 6 times
9 times 7 are 63	9 in 63, 7 times
9 times 8 are 72	9 in 72, 8 times
9 times 9 are 81	9 in 81, 9 times
9 times 10 are 90	9 in 90, 10 times

7. Multiply each of the following numbers by 9:

10, 1, 4, 2, 6, 5, 7, 9, 3, 8.

8. Divide each of the following numbers by 9:

36, 18, 54, 90, 72, 9, 63, 81, 45, 27.

9. Count by 2's from 2 to 20. By 3's from 3 to 3
By 4's from 4 to 40.

10. Count by 5's from 5 to 50. By 6's from 6 to 6
By 9's from 9 to 90.

11.	12.	13.		14.	15.	16.
23	19	32	From	53	45	65
21	11	10	take	19	36	28
16	26	13				
14	15	24		17.	18.	19.
7	12	9		19	36	28
3	6	2	Add	34	9	37

LESSON 57.

1. If a pig costs 8 dollars, what will 2 pigs cost?

2. How many quarts of corn will 2 pigs eat in 5 days if they eat 8 quarts of corn a day?

3. How many times 8 in 16? 8 in 40? 5 in 40?

4. How many yards of cloth at 9 cents a yard can be bought for 27 cents? For 54 cents?

5. At 9 cents each, what will 7 melons cost?

6. On a tree are 8 birds, and there are 6 times as many flying. How many are flying?

7. How many are 9 times 7? 6 times 8?

Copy and complete:

8.	9.	10.
$7 \times 9 =$	$45 = \quad \times 9$	$7 \times 8, -7 =$
8×3	$49 = 7 \times$	$9 \times 7, +5 =$
9×4	$54 \div 6 =$	$4 \times 8, -9 =$
8×2	$63 = 9 \times$	$6 \times 4 = 8 \times$
9×8	$64 \div 8 =$	$9 \times 6, -5 =$
8×5	$36 = 9 \times$	$8 \times 8, -9 =$
7×8	$72 = 8 \times$	$7 \times 7, -5 =$
9×2	$81 \div 9 =$	$6 \times 6 = 4 \times$
9×9	$48 \div 6 =$	$4 \times 8, +7 =$
8×8	$35 = 7 \times$	$3 \times 7, +11 =$

LESSON 58.

1. Ninety-one is written . . *91*, or XCI.
2. Ninety-two is written . . *92*, or XCII.
3. Ninety-three is written . . *93*, or XCIII.
4. Ninety-four is written . . *94*, or XCIV.
5. Ninety-five is written . . *95*, or XCV.
6. Ninety-six is written . . *96*, or XCVI.
7. Ninety-seven is written . . *97*, or XCVII.
8. Ninety-eight is written . . *98*, or XCVIII.
9. Ninety-nine is written . . *99*, or XCIX.
10. One hundred is written . . *100*, or C.

11. How many tens are 9 tens and 1 ten? How many ones are 90 and 10?

12. Write and read: 97, 91, 93, 98, 95, 99.

13. Make on your slate the letters standing for *94, 98, 91, 93, 92, 95, 96, 100.*

14. Write on your slate 29; add 25; subtract 6; divide by 8.

15. Write 45; add 19 and 7; subtract 16; divide by 5.

16. How many are 7 and 8? 27 and 8? 37 and 8? 47 and 8?

17. How many are 13 less 5? 23 less 5? 43 less 5? 53 less 5?

18. $19 + 16 + 25 + 9 + 7 = ?$

19. $72 - 7 - 6 - 5 - 8 = ?$

20. $24 + 81 - 12, \div 3 = ?$

21. [illegible] $15, - 13, - 12, \div 7 = ?$

LESSON 59.

Recite the tables:

1.	2.
10 times 1 are 10	10 in 10, once
10 times 2 are 20	10 in 20, 2 times
10 times 3 are 30	10 in 30, 3 times
10 times 4 are 40	10 in 40, 4 times
10 times 5 are 50	10 in 50, 5 times
10 times 6 are 60	10 in 60, 6 times
10 times 7 are 70	10 in 70, 7 times
10 times 8 are 80	10 in 80, 8 times
10 times 9 are 90	10 in 90, 9 times
10 times 10 are 100	10 in 100, 10 times

3. In one dime there are 10 cents. How many cents in 2 dimes?

How many are 10 + 10? How many are 2 × 10?

4. At 10 cents a pound, how many pounds of sugar can be bought for 20 cents?

20 is how many times 10? 10 times what number make 20?

5. If you should save 10 cents a day, how many cents could you save in 3 days?

How many are 10 + 10 + 10? How many are 3 times 10?

6. A boy divided 30 apples equally among his 3 brothers. How many did he give each of them?

30 is how many times 10? 10 times what number *is 30?*

7. In one hive there are 10 pounds of honey, and in another 4 times as many pounds. How many are there in the second hive?

How many are 10 + 10 + 10 + 10? How many are 4 times 10?

8. If a man earns 40 dollars in 4 weeks, how much is that a week?

40 is how many times 10? 10 times what number is 40?

9. If a vessel sails at the rate of 10 miles an hour, how far will it sail in 5 hours?

How many are 10 + 10 + 10 + 10 + 10? How many are 5 times 10?

10. Jane received in 5 weeks 50 merits. How many was that a week?

50 is how many times 10? 10 times what number is 50?

Write and complete:

11.	12.	13.
$10 \times 6 =$	$10 \times 7 =$	$60 \div 10 =$
$40 \div 10 =$	$10 \times 8 =$	$10 \times 10 =$
$10 \times 8 =$	$90 \div 10 =$	$30 \div 10 =$

	14.	15.	16.	17.	18.	19.
Multiply	10	11	10	12	20	21
by	7	7	4	4	3	3

20.	21.	22.	23.	24.	25.
	7) 77	4) 40	4) 48	3) 60	3) 63

LESSON 60.

1. If 3 dogs should catch 5 hares each, how many would they catch in all?

2. A man has 3 dogs: for one he paid 4 dollars, for another 5 dollars, and for the third 6 dollars. How much did the three cost him?

3. James had 13 dollars and paid away 7 dollars. How many dollars had he then left?

4. At 5 dollars a ton, what will 9 tons of coal cost?

5. At 7 miles an hour, in what time will a horse trot 42 miles?

6. Alice is 18 years old, and her sister is 8 years younger. How old is her sister?

7. In 7 baskets, containing 9 peaches each, there are how many peaches?

8. How many times 9 in 81? In 72?

9. What will 8 melons cost at 10 cents each?

10. How many pounds of sugar at 10 cents a pound can be bought for 90 cents?

11. How many are 16 − 8 + 5? How many are 9 + 1 − 8?

12. On a tree were 10 birds, but 7 have flown away. How many remain?

13. A man paid for a coat 8 dollars, for a vest 6 dollars, and for a hat 2 dollars. How much did he pay for all?

14. How many are 8 − 2, × 6? How many are 80 ÷ 10, + 7?

	15.	16.	17.	18.	19.	20.
Multiply	20	22	30	32	10	11
by	4	4	3	3	8	8

21.	22.	23.	24.	25.	26.
4) 80	4) 88	3) 90	3) 96	8) 80	8) 88

Copy and complete:

27.	28.
48 ÷ 8, × 7, − 2	2 × 3, × 7, + 9
6 × 9, + 2, ÷ 7	64 ÷ 8, − 5, × 7
63 ÷ 7, × 9, − 5	25 − 7, − 3, ÷ 3
36 − 4, ÷ 8, × 7	25 ÷ 5, × 9, + 7
19 + 8, ÷ 3, × 5	81 − 9, ÷ 9, × 7

LESSON 61.

1. Here is a picture of a piece of bronze money. What is it called?

2. A silver dime is 10 cents. How many cents in 3 dimes? In 5 dimes?

3. At a dime each, how many cents will 6 slates cost?

4. A dollar is 10 dimes. How many cents in this gold dollar?

5. At a dime a pound, how many cents will 9 pounds of sugar cost?

6. At a dime a yard, how many yards of cloth can be bought for 1 dollar?

7. How many dimes are 3 dollars? 5 dollars?

8. How many quarts of cherries at a dime a quart can be bought for 3 dollars? For 5 dollars?

9. At 5 dimes a day, in what time can you earn 1 dollar? 4 dollars?

10. John has 12 dimes, and James 80 cents. How many dollars have they both?

11. Henry had a dollar, but spent 3 dimes for a ride. How many cents had he left?

12. If you have 2 dimes and have 5 cents given you, how many cents have you then?

13. A quarter of a dollar is 25 cents. If you should have a quarter of a dollar and spend 5 cents, how many *cents would you* have left?

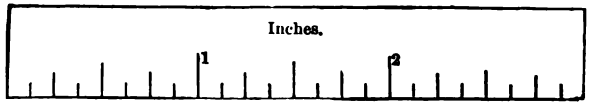
14. A half-dollar is 50 cents. How many dimes in a half-dollar? How many dollars are 2 half-dollars?

15. If you should buy 4 quarts of berries at 10 cents a quart, and give in payment a half-dollar, how much change should you receive?

16.	**17.**		**18.**	**19.**	**20.**	**21.**
12	19	Multiply	40	43	10	11
31	20	by	2	2	9	9
20	13					
28	34	**22.**	**23.**	**24.**		**25.**
Add 9	12	2) 80	2) 86	9) 90		9) 99

LESSON 62.

1. Here is a picture of a 3-inch rule.



Draw upon your slate a line 1 inch long. Draw a line and mark off on it 3 inches.

2. A foot is 12 inches. How many times 3 inches is a foot?

3. A foot and 6 inches are how many inches?

4. If your steps are 2 feet long, how many feet will you take in 8 steps? In 10 steps?

5. A yard is 3 feet. How many feet in 6 yards? *In 9 yards?*

6. A piece of cloth is 19 feet long, and another is 10 feet long. How many yards longer is one piece than the other?

7. A room is 10 yards long and 8 yards wide. How many more feet in its length than in its width?

8. A table is 3 feet wide and 9 feet long. How many yards around it?

9. A walk is 9 yards long. How many feet long is it?

10. What will 27 feet of rope cost at 6 cents a yard?

11.	**12.**		**13.**	**14.**	**15.**	**16.**
13	19	From	79	67	80	93
12	11	take	45	18	59	66
15	21					
26	16		**17.**	**18.**	**19.**	**20.**
20	23		34	49	21	27
Add 14	10	Add	45	18	59	66

LESSON 63.

1. Here is a picture of gill, pint, quart, and gallon measures, used in measuring liquids.

A pint is 4 gills. How many gills in 2 pints?

2. How many pints in 8 gills? In 12 gills?

3. A quart is 2 pints. How many pints will fill a 2-quart pail?

4. How many quarts in 10 pints? In 16 pints?

5. A gallon is 4 quarts. How many quarts in 4 gallons? In 7 gallons?

6. If a family uses 2 quarts of milk a day, how many gallons will it use in 8 days?

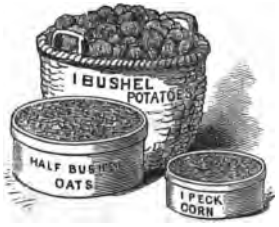
7. How many quarts of milk at 6 cents a quart can be bought for 36 cents?

8. What will 1 gallon of vinegar cost at 8 cents a quart?

9. A keg contains 40 quarts. How many gallons will it hold?

10. How many pints in 1 gallon? In 4 gallons?

LESSON 64.



1. Potatoes, apples, corn, oats, and some other dry articles, are measured by the peck or bushel.

A peck is 8 quarts. How many quarts in 2 pecks? In 3 pecks?

2. At 10 cents a quart, what will a peck of berries cost?

3. John gathered 7 quarts of blueberries Monday and 9 quarts Tuesday. How many pecks did he gather in both days?

4. A bushel is 4 pecks. How many pecks will a 2-bushel bag hold?

5. On one tree there were 1 bushel 3 pecks of peaches and on another 3 bushels. How many more pecks were there on the one than on the other?

6. A half-bushel is 2 pecks. How many pecks in a bushel and a half-bushel?

7. If a horse eats 4 quarts of corn a day, in what time will he eat a peck? 4 pecks?

8. At 10 cents a quart, how many quarts of nuts can be bought for 80 cents?

9. In 1 bushel 3 pecks how many pecks? How many quarts?

10. How many bushels in 16 pecks? In 36 pecks?

11.	**12.**		**13.**	**14.**	**15.**	**16.**
20	11	From	81	62	58	93
15	23	take	16	19	58	77
16	16					
28	15		**17.**	**18.**	**19.**	**20.**
11	20	Multiply	13	16	48	29
Add 10	15	by	7	5	2	3

	21.	**22.**	**23.**	**24.**	**25.**	**26.**
Multiply	23	14	46	17	12	15
by	4	7	2	5	8	6

27.	**28.**	**29.**	**30.**	**31.**	**32.**
4) 92	7) 98	2) 92	5) 85	8) 96	6) 90

LESSON 65.

1. Here is a picture of a man weighing sugar.

A pound is 16 ounces, and a half-pound is 8 ounces.

What will half a pound of nutmegs cost at 8 cents an ounce?

2. What will 9 pounds of rice cost at 10 cents a pound?

3. How many ounces of nutmegs at 8 cents an ounce can be bought for 32 cents? For 72 cents?

4. A cental is 100 pounds. At 10 centals to a load, how many loads are 50 centals?

5. At 9 dollars a cental, what will 7 centals of sugar cost?

6. A ton is 20 centals, or 20 hundred pounds. How many hundred pounds are 1 ton and 5 hundred pounds?

7. When coal is 7 dollars a ton what will 8 tons cost?

8. When coal is 6 dollars a ton how many tons can be bought for 48 dollars?

9. How many hundred pounds are 1 ton and 7 hundred pounds? 1 ton 10 hundred pounds?

LESSON 66.

1. The smallest hand of a watch goes once around in 60 seconds, or a minute.

60 seconds make 1 minute.

2. The long hand of a watch goes once around in 60 minutes, or one hour.

60 minutes make 1 hour.

3. The short hand of a watch goes around once in 12 hours. In how many hours will it go around twice?

24 hours make 1 day.

4. Name the days of the week beginning with Sunday. How many are there?

7 days make 1 week.

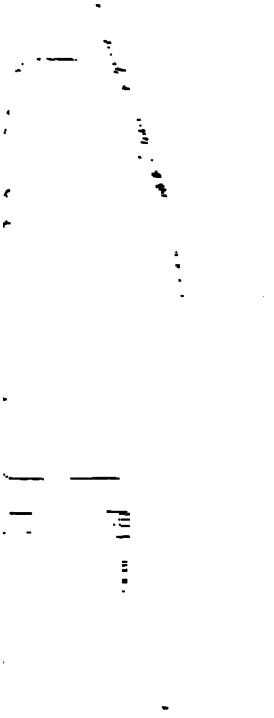
5. The names of the months of the year are January, February, March, April, May, June, July, August, September, October, November, December. How many are there?

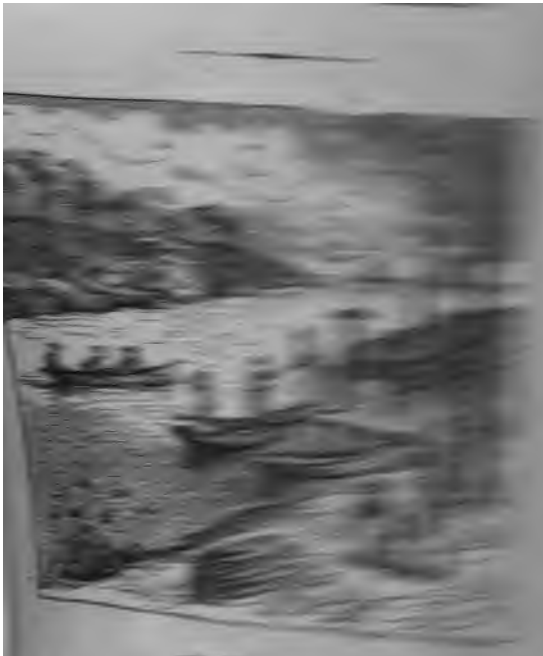
12 months make 1 year.

6. On what day of what month does Christmas come?

7. Learn the following rhyme so that you will know which months have 30 days. All the other months, except February, have 31 days.

"Thirty days hath September,
April, June, and November."





nce in
twice ?

Sun-

nuary,
August,
many

come ?
I know
months,

LESSON 67.

1. If you divide 6 marbles by 2, how many marbles will there be in one of the equal parts?

2. When a number is divided into 2 equal parts one of the equal parts is called **One Half.**

3. What is one half of 6? Of 8? Of 16? Of 12?

4. If one half of a number is 3, what are 2 halves, or the whole of the number?

5. If 9 marbles are divided equally among 3 boys, how many marbles will each boy have?

6. When a number is divided into 3 equal parts one of the equal parts is called **One Third.**

7. What is one third of 9? Of 6? Of 18? Of 15?

8. If one third of a number is 3, what are 2 thirds of it? 3 thirds, or the whole of it?

9. What is 2 thirds of 9? Of 6? Of 12? Of 15?

10. When a number is divided into 4 equal parts one of the equal parts is called **One Fourth.**

11. What is one fourth of 4 apples? Two fourths of 4 apples? Three fourths of 4 apples?

12. What is one fourth of 8? Of 16? Of 12? Of 20?

13. What is 3 fourths of 12? Of 20? Of 28? Of 24?

LESSON 68.

Make on your slate for

1. One half . . . $\frac{1}{2}$
2. One third . . . $\frac{1}{3}$
3. Two thirds . . . $\frac{2}{3}$
4. One fourth . . . $\frac{1}{4}$
5. Two fourths . . $\frac{2}{4}$
6. Three fourths . . $\frac{3}{4}$
7. One fifth . . . $\frac{1}{5}$
8. Two fifths . . . $\frac{2}{5}$
9. Three fifths . . $\frac{3}{5}$
10. Four fifths . . $\frac{4}{5}$
11. One sixth . . . $\frac{1}{6}$
12. Two sixths . . $\frac{2}{6}$
13. Three sixths . . $\frac{3}{6}$
14. Four sixths . . $\frac{4}{6}$
15. Five sixths . . $\frac{5}{6}$
16. Two sevenths . $\frac{2}{7}$
17. Five eighths . . $\frac{5}{8}$
18. Seven ninths . . $\frac{7}{9}$

19. What is $\frac{1}{2}$ of 14? $\frac{1}{3}$ of 12? $\frac{1}{4}$ of 32? $\frac{1}{5}$ of 30?
20. What is $\frac{2}{3}$ of 18? $\frac{2}{4}$ of 8? $\frac{2}{5}$ of 20? $\frac{2}{6}$ of 12?
21. What is $\frac{2}{5}$ of 10? of 15? of 25? of 20? of 30?
22. What is $\frac{3}{5}$ of 15? of 25? of 30? of 40? of 45?
23. What is $\frac{4}{5}$ of 25? of 30? of 20? of 35? of 40?
24. What is $\frac{1}{6}$ of 12? of 6? of 18? of 24? of 30?
25. What is $\frac{2}{6}$ of 6? of 12? of 24? of 18? of 30?
26. What is $\frac{3}{6}$ of 12? $\frac{4}{6}$ of 18? $\frac{5}{6}$ of 30? $\frac{5}{6}$ of 42?
27. What is $\frac{1}{7}$ of 7? of 14? of 21? of 28? of 35?
28. What is $\frac{2}{7}$ of 14? of 28? of 42? of 49? of 35?
29. What is $\frac{3}{7}$ of 21? $\frac{4}{7}$ of 28? $\frac{5}{7}$ of 35? $\frac{6}{7}$ of 42?
30. What is $\frac{1}{8}$ of 8? $\frac{2}{8}$ of 16? $\frac{3}{8}$ of 24? $\frac{4}{8}$ of 32? $\frac{5}{8}$ of 40? $\frac{7}{8}$ of 32? $\frac{2}{7}$ of 14? $\frac{5}{7}$ of 63?

LESSON 69.

1. Add $\frac{2}{3}$ of 12 and $\frac{3}{4}$ of 16 together.

2. Take $\frac{1}{5}$ of 20 from $\frac{3}{4}$ of 24.

3. What will half a dozen eggs cost at 30 cents a dozen?

4. If I can buy 2 apples for a cent, how many can I buy for 8 cents?

5. I pay 7 cents a quart for milk every day. How much do I pay in a week?

6. A cash-boy earns half a dollar a day. How many dollars does he earn in a week?

7. The sign $ stands for **dollars.** $5 is the same as 5 dollars. Read $6; $7; $9; $11.

8. A lady had $8, but spent $\frac{1}{2}$ of it for cloth and $\frac{1}{4}$ of it for ribbon. How much had she left?

9. What four coins make a dollar?

10. What three coins make a dollar?

11. What must you add to 3×4 to make $\frac{2}{3}$ of 27?

12. Go to the store with half a dollar and buy 6 pounds of rice at 6 cents a pound. How much will you have left?

13. Jennie went into the country and stayed 3 weeks and 4 days with her aunt. How many days was she gone?

LESSON 76.

1. If a ton of hay costs $20, what is the cost of $\frac{1}{4}$ of a ton? Of $\frac{3}{4}$ of a ton? Of $\frac{1}{5}$? Of $\frac{3}{5}$?

2. If a tub of butter is worth $24, what is $\frac{1}{8}$ of it worth? $\frac{5}{8}$ of it? $\frac{1}{8}$ of it? $\frac{5}{8}$ of it?

3. How many inches in 1 foot? How many feet in 1 yard? How many inches in 1 yard?

4. How many inches in $\frac{1}{4}$ of a yard? In $\frac{3}{4}$ of a yard? In $\frac{5}{6}$ of a yard? In $\frac{5}{9}$ of a yard?

5. What is the difference between $\frac{3}{4}$ of 40 and $\frac{4}{5}$ of 25?

6. At 28 cents a pound what will $\frac{1}{4}$ of a pound of candy cost? $\frac{1}{2}$ of a pound? $\frac{3}{4}$ of a pound?

7. How many quarts are there in a bushel? In $\frac{1}{2}$ a bushel? In $\frac{1}{4}$? In $\frac{3}{4}$? In $\frac{1}{8}$?

8. What will $\frac{1}{2}$ a pound of sugar cost at 12 cents a pound? What will 2 pounds cost? What will two and one half pounds cost?

9. How many minutes in $\frac{1}{4}$ of an hour? In $\frac{3}{4}$ of an hour? In $\frac{2}{3}$ of an hour?

10. If you sleep $\frac{1}{3}$ of every day, how many hours do you sleep? How many hours are you awake?

11. What will $\frac{3}{4}$ of a gallon of molasses cost at 40 cents a gallon? What is $\frac{3}{4}$ of 40? $\frac{7}{10}$ of 40? $\frac{4}{5}$ of 40?

LESSON 71.

1. When *three* figures are written side by side the figure at the left expresses **Hundreds**.

2.	One hundred	is written . . .	*100*
3.	One hundred one	is written . . .	*101*
4.	One hundred ten	is written . . .	*110*
5.	One hundred twenty-one	is written . . .	*121*
6.	One hundred eighty-four	is written . . .	*184*
7.	Two hundred	is written . . .	*200*
8.	Two hundred three	is written . . .	*203*
9.	Two hundred thirty	is written . . .	*230*
10.	Two hundred forty-five	is written . . .	*245*
11.	Three hundred	is written . . .	*300*
12.	Four hundred sixty	is written . . .	*460*
13.	Five hundred nine	is written . . .	*509*
14.	Six hundred ninety-six	is written . . .	*696*

15. In 847, which figure expresses hundreds? Which tens? Which ones?

16. In 785, what does the 5 express? In 653? In 567?

17. Write on the slate and read:

94, 63, 295, 378, 425, 245, 772, 503, 699, 444, 900, 808, 650, 841, 999, 464, 801, 946, 349, 842, 690.

LESSON 72.

1. When *four* figures are written side by side the figure at the left expresses **Thousands**.

2. One thousand is written *1 000*

3. One thousand two hundred, *1 200*

4. One thousand two hundred thirty, *1 230*

5. One thousand two hundred thirty-four, *1 234*

6. Two thousand fifty, *2 050*

7. Three thousand six hundred eight, *3 608*

8. Five thousand seven hundred ninety-one, *5 791*

9. When *five* figures are written side by side the figure at the left expresses **Ten-thousands**.

10. Ten thousand is written *10 000*

11. Twenty thousand, *20 000*

12. Fifty-four thousand, *54 000*

13. Eighty-one thousand two hundred, *81 200*

14. Forty thousand eighty-four, *40 084*

15. Fifteen thousand five hundred seven, *15 507*

16. In 96 345, which figure expresses hundreds? Which thousands? Which ten-thousands?

17. Write on the slate and read:

3 476,	*5 092,*	*83 471,*	*96 408,*
2 891,	*7 643,*	*91 002,*	*84 961,*
5 496,	*3 299,*	*64 321,*	*42 909.*

LESSON 73.

1. Add $\frac{1}{2}$ of 16, $\frac{1}{3}$ of 15, and 4×3 together.

2. Eddie received 8 cents from his aunt, his mother gave him 7 cents more, and he earned 2 dimes. He then spent 5 cents for pears; how much had he left?

3. How many must be added to four 9's to make six 7's?

4. Frank went to the store with half a dollar. He bought a book for 15 cents, a slate for 10 cents, a sponge for 2 cents, and 5 cents' worth of pencils; how much had he left?

5. Lucy went to the post-office and bought 3 three-cent stamps, 4 two-cent stamps, and 7 one-cent stamps. She gave the postmaster a quarter of a dollar. How much change did he give her?

6. How many books are there in Henry's library if there are 19 books on the first shelf, 7 on the second, 10 on the third, and 8 on the fourth?

7. $9 \times 7, + 8 = 80 - ?$

8. $9 \times 9, - 7 = 68 + ?$

9. $4 + 3, \times 7 = 56 - ?$

10. $6 \times 4, + 8 = 8 \times ?$

11. $90 \div 10, + 8 = 9 + ?$

12. $36 \div 9, + 5 = 81 \div ?$

13. $\frac{3}{4}$ of $20 + \frac{5}{6}$ of $12 = ?$

14. $\frac{3}{5}$ of $30, \div 6 \times 9 = ?$

15. $\frac{4}{9}$ of $18, \times 8 = 70 - ?$

16. $\frac{2}{3}$ of $9, \times \frac{3}{4}$ of $12 = ?$

17. $\frac{4}{5}$ of $40, \div \frac{2}{3}$ of $12 = ?$

LESSON 74.

SLATE EXERCISES.

1. Two dollars and twenty-five cents are written $2.25. Write and read: $3.75, $8.42, $4.87, $9.18, $6.10, $5.08, $3.94.

2. A farmer received $2.25 for eggs, $7.75 for butter, $4.82 for cheese, and $1.20 for milk. How much did he receive for all?

3. John counted the panes of glass in the house. There were 48 in the parlor, 36 in the dining-room, 24 in the kitchen, 60 in the library, and 84 in the bedrooms. How many were there in all?

4. Add 4×6, 9×8, 10×9, 6×6, and 7×7.

5. $347 + 941 + 231, - 842 =$ how many?

6. One man paid me $2.64, another $3.75, another $4.83, and another $5.62. I then spent $2.50 for a hat. How much had I left?

7. Charles and his sister went to ride with their father. Charles weighs 85 pounds, Ella 68 pounds, their father 183 pounds, and the buggy 281 pounds. How many pounds does the horse have to draw?

8. Add $2.87, $4.25, $6.84, and $9.72.

9. Arthur bought a knife for $1.25 and sold it for 92 cents. How much did he lose?

LESSON 75.

Find the cost of

1. 4 dozen eggs at 10 cents a dozen.
2. 6 pounds of rice at 9 cents a pound.
3. 8 quarts of milk at 7 cents a quart.
4. 9 yards of lace at 9 cents a yard.
5. 5 pecks of peas at 6 dimes a peck.
6. 7 bushels of wheat at 2 dollars a bushel.
7. 9 yards of cloth at 5 dollars a yard.

Find the cost of

8. 1 pound of meat when 8 pounds cost 72 cents.
9. 1 quart of oil when 7 quarts cost 56 cents.
10. 1 ounce of indigo when 5 ounces cost 60 cents.
11. 1 yard of silk when 9 yards cost 36 dollars.
12. 1 pound of nails when 6 pounds cost 54 cents.
13. 1 pint of milk when 10 pints cost 50 cents.
14. 1 dozen eggs when 7 dozen cost 63 cents.

Find the cost of

15. 3 pounds of sugar if 2 pounds cost 18 cents.
16. 5 loaves of bread if 4 loaves cost 24 cents.
17. 6 lead pencils if 5 pencils cost 30 cents.
18. 8 dozen eggs if 7 dozen cost 70 cents.
19. 9 quarts of milk if 10 quarts cost 80 cents.
20. 4 pounds of cheese if 8 pounds cost 72 cents.
21. 7 papers of tacks if 9 papers cost 81 cents.
22. 10 pairs of boots if 6 pairs cost 48 dollars.

LESSON 76.

SLATE EXERCISES

Find the cost of

1. 3 tons of hay at $24 a ton.
2. 6 cows at $64 each.
3. 7 horses at $125 each.
4. 8 wagons at $95 each.
5. 9 watches at $235 each.
6. 13 houses at $564 each.

Find the cost of

7. 1 horse when 3 horses cost $321.
8. 1 sleigh when 4 sleighs cost $500.
9. 1 piano when 6 pianos cost $1500.
10. 1 car when 8 cars cost $2168.
11. 1 house when 7 houses cost $49350.
12. 1 ship when 5 ships cost $12000.

Find the cost of

13. 3 yoke of oxen when 2 yoke cost $450.
14. 4 ploughs when 6 ploughs cost $186.
15. 24 cows when 9 cows cost $585.
16. 17 dozen chairs when 8 dozen cost $128.
17. 85 reams of paper when 6 reams cost $144
18. 72 rods of fence when 10 rods cost $350.
19. 15 lots of land when 8 lots cost $1200.
20. 53 sewing-machines when 7 cost $343.
21. 79 sofas when 9 sofas cost $315.

DRILL EXERCISES.

ADDITION.

1.	2.	3.	4.
9 + 8	3 + 6	3 + 9	6 + 4
6 + 3	4 + 8	4 + 7	5 + 7
2 + 2	7 + 5	6 + 9	6 + 8
4 + 2	8 + 3	4 + 2	1 + 9
2 + 7	5 + 2	9 + 5	7 + 6
9 + 6	9 + 1	3 + 3	5 + 5
3 + 5	3 + 6	6 + 6	4 + 9
9 + 9	2 + 8	2 + 9	6 + 1
4 + 1	8 + 9	2 + 6	5 + 3
8 + 5	8 + 2	8 + 7	1 + 8

5.	6.	7.	8.
7 + 7	8 + 8	5 + 9	2 + 5
6 + 7	4 + 6	9 + 3	7 + 3
8 + 1	2 + 4	7 + 2	6 + 5
7 + 1	7 + 8	3 + 7	7 + 9
2 + 3	5 + 6	5 + 4	1 + 5
4 + 3	3 + 8	1 + 6	9 + 7
9 + 2	1 + 7	9 + 4	3 + 2
3 + 1	5 + 8	5 + 1	4 + 5
1 + 3	7 + 4	1 + 2	2 + 1
6 + 2	1 + 4	3 + 4	8 + 4

SUBTRACTION.

1.	2.	3.	4.
5 from 9	4 from 8	2 from 7	8 from 10
1 from 8	2 from 5	3 from 9	5 from 12
2 from 11	9 from 14	7 from 7	1 from 6
8 from 13	8 from 11	9 from 12	2 from 4
6 from 12	3 from 12	4 from 7	3 from 7
5 from 7	9 from 17	1 from 5	6 from 9
1 from 1	5 from 11	3 from 8	4 from 11
3 from 6	1 from 9	1 from 2	6 from 14
2 from 9	6 from 6	5 from 13	1 from 4
8 from 18	1 from 10	7 from 16	2 from 6
9 from 20	7 from 20	8 from 20	5 from 20
3 from 10	4 from 4	6 from 15	6 from 13

5.	6.	7.	8.
7 from 11	3 from 4	8 from 8	9 from 9
5 from 10	8 from 17	9 from 18	7 from 15
8 from 15	4 from 13	1 from 7	1 from 3
4 from 5	3 from 5	2 from 8	7 from 10
5 from 14	8 from 12	5 from 5	2 from 2
6 from 7	4 from 10	6 from 8	7 from 13
2 from 3	9 from 15	7 from 14	4 from 9
6 from 11	3 from 11	6 from 10	8 from 9
5 from 8	8 from 16	7 from 9	9 from 10
3 from 3	9 from 11	4 from 6	8 from 14
9 from 13	7 from 8	7 from 12	5 from 6
9 from 16	4 from 12	4 from 20	6 from 20

SLATE EXERCISES.

ADDITION.

A	
a	164
b	285
c	376
d	467
e	558
f	659
g	740
h	821
i	932
j	297
k	106
l	385
m	479
n	567
o	653
p	745
q	833
r	924
s	185
t	296
u	357
v	418
w	529
x	632

Select from column A the number oppos each letter of the word "back" and add t four numbers. Thus:

b = 285
a = 164
c = 376
k = 106
931, Ans.

Add the numbers corresponding to t letters in the following words:

1. kite	17. around	33. friends
2. page	18. mother	34. grammar
3. swim	19. rabbit	35. sharpen
4. very	20. trying	36. pitcher
5. much	21. jumped	37. stretch
6. sled	22. father	38. cushion
7. brave	23. pencil	39. wrinkle
8. chair	24. bright	40. joyful
9. horse	25. brother	41. holiday
10. sight	26. scholar	42. fright
11. whose	27. flowers	43. orange
12. music	28. autumn	44. adding
13. sugar	29. quickly	45. multiply
14. their	30. surface	46. divide
15. frozen	31. absence	47. umbrella
16. winter	32. buzzing	48. vacation

SUBTRACTION.

The letters stand for numbers in column A, page 114. Find the value of the following:

1. b − a	7. i − c	13. z − s	19. e − s	25. l − a
2. c − b	8. n − j	14. x − m	20. s − a	26. q − t
3. d − c	9. p − k	15. y − u	21. d − j	27. h − c
4. f − d	10. o − l	16. w − t	22. z − t	28. w − v
5. g − a	11. q − m	17. v − j	23. t − s	29. p − c
6. h − b	12. r − o	18. o − a	24. y − e	30. o − k

31. Subtract 89 from each number in column A.

32. Subtract 157 from each number in column A.

33. Subtract each number in column A from 932.

34. Find the difference between each number in column A and 634; 529; 641; 398.

35. Find the difference between each number and the number under it in column A.

Add the numbers corresponding to the letters in the following words, and then find the difference of their sums:

36. the − sky	43. ice − us	50. sofa − mug
37. man − to	44. dog − if	51. park − tub
38. dew − in	45. fry − we	52. from − lie
39. sin − go	46. ark − by	53. soft − ear
40. owl − am	47. bag − me	54. quit − joy
41. kid − be	48. rub − is	55. doze − day
42. cow − my	49. son − pa	56. lamp − boy

MULTIPLICATION.

1.	2.	3.	4.
3 × 6	4 × 10	10 × 1	8 × 6
4 × 7	5 × 9	6 × 9	2 × 1
2 × 8	6 × 8	9 × 4	7 × 10
6 × 1	5 × 6	5 × 8	6 × 7
7 × 5	7 × 9	4 × 3	5 × 4
10 × 2	10 × 10	3 × 9	7 × 3
9 × 3	9 × 7	10 × 7	10 × 5
8 × 5	8 × 8	2 × 3	9 × 2
2 × 2	2 × 6	3 × 7	2 × 10
3 × 4	3 × 8	4 × 5	4 × 9
7 × 8	7 × 7	9 × 6	9 × 9
3 × 3	3 × 5	6 × 4	6 × 3

5.	6.	7.	8.
7 × 8	7 × 6	10 × 9	10 × 4
8 × 4	8 × 7	9 × 8	2 × 5
6 × 6	4 × 2	5 × 10	5 × 1
2 × 9	7 × 7	4 × 8	9 × 10
8 × 9	10 × 8	9 × 9	9 × 7
3 × 10	8 × 1	6 × 5	7 × 6
4 × 4	6 × 10	5 × 2	5 × 3
5 × 7	3 × 2	7 × 4	3 × 1
9 × 6	4 × 1	10 × 6	2 × 7
8 × 10	5 × 5	6 × 2	10 × 3
2 × 4	9 × 1	7 × 1	7 × 2
4 × 6	8 × 3	8 × 2	9 × 5

DIVISION.

1.	2.	3.	4.
6 in 42	8 in 24	4 in 32	9 in 81
2 in 20	9 in 63	9 in 45	10 in 60
4 in 36	2 in 8	8 in 72	6 in 36
3 in 24	3 in 27	10 in 20	3 in 9
7 in 56	4 in 16	6 in 18	2 in 12
5 in 25	6 in 12	2 in 2	8 in 32
10 in 100	7 in 28	4 in 20	10 in 90
9 in 54	6 in 54	5 in 15	6 in 24
8 in 48	2 in 16	3 in 3	2 in 18
10 in 10	3 in 30	7 in 35	7 in 42
9 in 63	6 in 54	8 in 64	5 in 35
5 in 30	6 in 48	3 in 21	5 in 10

5.	6.	7.	8.
5 in 45	8 in 8	8 in 16	8 in 56
10 in 50	10 in 80	9 in 18	9 in 27
3 in 12	6 in 30	7 in 7	3 in 6
2 in 4	4 in 24	4 in 28	5 in 20
7 in 21	4 in 8	2 in 6	8 in 80
8 in 24	7 in 70	3 in 18	4 in 12
5 in 5	10 in 40	7 in 49	2 in 10
7 in 63	9 in 36	2 in 14	5 in 40
6 in 60	4 in 4	10 in 70	5 in 50
8 in 40	6 in 6	9 in 90	3 in 15
7 in 14	10 in 30	5 in 35	4 in 40
9 in 72	9 in 9	8 in 72	5 in 35

MULTIPLICATION.

Multiply the following numbers together:

1.	23×2	24.	32×11	47.	35×35
2.	45×3	25.	54×12	48.	47×47
3.	67×4	26.	76×13	49.	93×64
4.	89×5	27.	98×15	50.	86×26
5.	29×6	28.	52×16	51.	54×72
6.	38×7	29.	67×23	52.	91×68
7.	47×8	30.	38×21	53.	37×84
8.	56×9	31.	57×25	54.	65×47
9.	64×9	32.	66×33	55.	98×23
10.	55×8	33.	82×36	56.	72×95
11.	34×7	34.	93×19	57.	29×29
12.	62×6	35.	46×20	58.	36×30
13.	123×5	36.	324×17	59.	108×94
14.	321×4	37.	974×43	60.	368×59
15.	425×3	38.	523×56	61.	245×72
16.	218×2	39.	764×49	62.	971×39
17.	421×5	40.	593×35	63.	647×67
18.	872×7	41.	641×66	64.	525×83
19.	343×9	42.	219×19	65.	349×99
20.	976×4	43.	843×38	66.	876×64
21.	522×6	44.	786×91	67.	249×57
22.	649×8	45.	923×87	68.	777×29
23.	142×7	46.	247×64	69.	364×38

DIVISION.

1. 246 ÷ 2
2. 918 ÷ 3
3. 575 ÷ 5
4. 216 ÷ 6
5. 343 ÷ 7
6. 512 ÷ 8
7. 828 ÷ 9
8. 564 ÷ 4
9. 252 ÷ 7
10. 624 ÷ 8
11. 420 ÷ 5
12. 532 ÷ 7
13. 177 ÷ 3
14. 624 ÷ 6
15. 570 ÷ 2
16. 712 ÷ 8
17. 528 ÷ 6
18. 648 ÷ 9
19. 420 ÷ 5
20. 220 ÷ 4
21. 468 ÷ 9
22. 729 ÷ 9
23. 672 ÷ 8
24. 1476 ÷ 2
25. 8341 ÷ 7
26. 9762 ÷ 3
27. 3849 ÷ 8
28. 8217 ÷ 4
29. 4538 ÷ 9
30. 6049 ÷ 5
31. 2312 ÷ 3
32. 6784 ÷ 6
33. 5982 ÷ 4
34. 1769 ÷ 7
35. 3204 ÷ 5
36. 3004 ÷ 8
37. 6932 ÷ 6
38. 2876 ÷ 9
39. 9401 ÷ 7
40. 5876 ÷ 3
41. 3847 ÷ 8
42. 2491 ÷ 4
43. 6555 ÷ 9
44. 8435 ÷ 5
45. 2989 ÷ 7
46. 9876 ÷ 6
47. 42678 ÷ 9
48. 93214 ÷ 3
49. 76832 ÷ 8
50. 91462 ÷ 2
51. 84391 ÷ 7
52. 34960 ÷ 3
53. 54983 ÷ 6
54. 24987 ÷ 4
55. 18764 ÷ 5
56. 54505 ÷ 5
57. 84329 ÷ 4
58. 64831 ÷ 3
59. 84765 ÷ 9
60. 91432 ÷ 2
61. 10084 ÷ 8
62. 56789 ÷ 6
63. 34125 ÷ 7
64. 86783 ÷ 4
65. 24984 ÷ 6
66. 64515 ÷ 8
67. 17842 ÷ 5
68. 49178 ÷ 9
69. 66801 ÷ 4

ADDITION AND SUBTRACTION.

1. $10 + 5 - 7 - 6 + 3 + 2 + 4 - 5 =$ how many?
2. $11 - 2 + 5 - 3 + 4 - 6 + 2 + 3 =$ how many?
3. $1 + 2 + 3 + 4 + 5 + 6 - 7 - 8 =$ how many?
4. $20 - 3 - 3 - 3 - 3 - 3 + 4 + 5 =$ how many?
5. $2 + 2 + 2 + 3 + 3 + 4 + 4 - 6 =$ how many?
6. $2 + 3 - 2 + 4 - 3 + 6 - 2 - 3 =$ how many?
7. $6 + 6 + 6 - 5 - 4 + 9 - 7 + 8 =$ how many?
8. $7 + 8 - 2 + 9 - 3 - 5 + 7 + 6 =$ how many?
9. $5 + 7 + 8 + 2 - 3 - 4 - 5 + 7 =$ how many?
10. $35 - 7 - 7 - 7 - 7 + 5 + 6 - 3 =$ how many?
11. $45 - 9 - 9 - 9 - 9 + 3 + 10 - 7 =$ how many?
12. $54 - 6 - 6 - 6 - 6 - 5 - 5 + 3 =$ how many?
13. $4 + 4 + 8 + 9 - 7 - 2 - 3 - 3 =$ how many?
14. $27 - 5 + 4 - 5 + 4 - 5 + 4 - 9 =$ how many?
15. $47 - 1 - 2 - 3 - 5 - 6 - 7 - 8 =$ how many?
16. $64 - 9 - 8 - 7 - 6 - 5 - 4 + 9 =$ how many?
17. $72 - 8 - 8 - 8 - 8 - 8 - 8 + 10 =$ how many?
18. $81 - 9 - 9 - 9 - 9 + 8 - 7 + 9 =$ how many?
19. $8 + 7 + 2 + 3 + 5 + 7 + 8 + 2 =$ how many?
20. $9 + 4 - 2 + 7 - 3 + 9 - 5 - 6 =$ how many?
21. $12 + 10 + 11 + 9 - 5 - 3 + 7 - 2 =$ how many?
22. $3 + 4 + 5 - 5 - 4 - 3 + 9 - 7 =$ how many?
23. $12 - 9 + 7 + 5 - 9 + 7 + 6 + 2 =$ how many?
24. $100 - 10 - 9 - 8 - 7 + 10 - 6 =$ how many?

97 − 5 − 5 − 5 − 5 − 5 − 5 − 5 = how many?

ADDITION, SUBTRACTION, MULTIPLICATION, AND DIVISION.

1. $50 - 8, \div 6, + 9, \div 8, \times 3, + 6, \div 3 = ?$*
2. $20 + 20, + 20, \div 6, \times 9, - 6, - 3, \div 9 = ?$
3. $45 - 3, \div 6, \times 9, + 10, + 10, - 3, \div 8 = ?$
4. $6 \times 6, + 8, + 4, \div 6, \times 3, + 4, \div 7, + 6 = ?$
5. $7 + 8, \div 5, \times 9, + 50, \div 7, \times 9, - 3, - 6 = ?$
6. $4 + 4 + 4, \div 6, \times 9, + 5, + 4, \div 9, \times 10 = ?$
7. $25 - 4, \div 3, + 20, \div 3, + 40, \div 7, \times 6 = ?$
8. $13 + 15, \div 4, \times 2, + 14, + 10, - 2 = ?$
9. $5 + 40, \div 5, + 60 - 3, - 3, \div 7 = ?$
10. $15 - 10, \times 8, + 30, + 2, \div 9, \times 3 = ?$
11. $50 + 4, \div 6, \times 10, + 6, + 4, \div 10 \times 3 = ?$
12. $7 + 20, \div 3, + 50, - 5, + 2, \div 8, \times 3 = ?$
13. $42 \div 6, + 9, \div 8, \times 10, + 20, \div 5 = ?$
14. $17 + 6, - 2, \div 3 \times 4, + 10, - 6 = ?$
15. $13 + 12, \div 5, \times 8, + 5, + 11, \div 8 + 6 = ?$
16. $9 \times 9, + 3, + 6, \div 9, \times 7, + 2, \div 8 = ?$
17. $2 + 3, \times 10, - 2 \div 6, \times 5, + 10, - 4 = ?$
18. $35 \div 5, \times 3, + 7, \div 4, + 7, + 8, \div 2 = ?$
19. $15 + 6, \div 3, + 20, \div 3, \times 9, + 3, - 7 = ?$
20. $12 + 8, \div 4, \times 6, + 3, + 3, \div 4 = ?$
21. $80 \div 10, + 9, + 3, \div 4, + 10, \div 3 = ?$
22. $10 + 10, + 9, + 10, + 10, \div 7, + 8, + 10 = ?$

* The comma is here used to show that the operation indicated by each sign is to be performed on the result of the preceding operation.

23. $19 - 4, + 15, \div 6, \times 7, + 10, + 5, + 4 = ?$
24. $100 - 10, - 3, - 4, - 2, \div 9, \times 7 = ?$
25. $50 + 30, + 1, \div 9, \times 4, - 1, \div 7 = ?$
26. $9 \times 7, + 9, - 4, - 8, \div 10, \times 7, + 5 = ?$
27. $50 + 30, + 1, \div 9, \times 4, - 4, \div 8, + 9 = ?$
28. $56 \div 8, + 20, \div 3, + 40, \div 7, \times 3 = ?$
29. $24 \div 3, \times 2, - 5, - 4, \times 2, + 10 = ?$
30. $25 + 10, \div 5, \times 6, + 2, + 4, + 9 = ?$
31. $40 - 20, + 1, \div 3, \times 10, + 2, \div 8 = ?$
32. $27 + 6 - 9, \div 8, \times 10, + 5, - 8 = ?$
33. $18 - 5, - 4, \times 2, + 10, \div 4 - 7 = ?$
34. $90 - 40, \div 5, + 2, \div 3, \times 4, \div 8 = ?$
35. $75 - 3, \div 8, + 9, \div 6, \times 9, + 3 = ?$
36. $100 - 9, - 8, - 7, - 6, - 5, - 4, - 3 = ?$
37. $23 + 5 + 6 + 7 + 8 + 9 + 3 + 9 = ?$
38. $25 \div 5, \times 7, - 3, \div 8, + 9, - 2, \times 2 = ?$
39. $64 \div 8, \div 4, \div 2, \times 9, \times 3, - 8 - 2 = ?$
40. $50 + 25, + 25, - 10, - 20, - 50 = ?$
41. $2 \times 2, \times 2, \times 2, + 10, + 2, \div 4 \times 7 = ?$
42. $2 + 8 + 5 + 1 + 7 + 3 + 6 + 4 + 9 = ?$
43. Multiply the numbers in Ex. 42 by 6 and add 4
44. Multiply them by 8 and add 5.
45. Multiply them by 5 and add 3.
46. Multiply them by 7 and add 6.
47. Multiply them by 4 and add 2.
48. Multiply them by 9 and add 7.

SLATE EXERCISES.

1. $347 + 829, - 281, \div 5, \times 23 = ?$
2. $924 - 643, + 375, \div 4, \times 45 = ?$
3. $24 \times 48, \div 6, + 987, - 319 = ?$
4. $75 \times 62, - 834, \div 9, + 478 = ?$
5. $876 + 941, - 762, \times 8, \div 4 = ?$
6. $828 \div 9, \times 59, - 483, + 648 = ?$
7. $774 + 466, - 319, \times 16, \div 8 = ?$
8. $349 \times 5, + 645, - 830, \div 3 = ?$
9. $45 \times 9, \times 7, - 189, + 828, \div 9 = ?$
10. $100 \times 45, - 3472, + 344, \div 7 = ?$
11. $132 \times 12, \div 6, + 732, - 199 = ?$
12. $725 - 640, \times 96, \div 8, + 643 = ?$
13. $9342 \div 9, \times 42, \div 7, + 49, - 999 = ?$
14. $641 + 879, - 777, \times 56, \div 7 = ?$
15. $3496 + 821, - 2999, \times 12, \div 4 = ?$
16. $4 \times 7, \times 5, \times 9, \div 7, + 847, - 989 = ?$
17. $684 \div 9, \times 36, \div 6, + 847, + 91 = ?$
18. $776 \div 4, \times 19, + 349, + 641, - 99 = ?$
19. $64 \times 64, \div 8, - 329, + 86, + 94 = ?$
20. $946 - 241, - 196, \times 89, + 76, \div 5 = ?$
21. $12 \times 12, \times 12, \div 9, \div 3, \times 64 = ?$
22. $847 + 842, - 198, \times 67, \div 7 = ?$
23. $641 \times 5, + 269, - 83 = ?$
24. $24 \times 24 \times 24, \div 6, \div 6 = ?$

DEFINITIONS.

1. **Addition** is finding a number equal to two or more given numbers.

2. The **Sum**, or **Amount**, is the result of an addition.

3. **Subtraction** is taking one of two like numbers from the other.

4. The **Subtrahend** is the number subtracted.

5. The **Minuend** is the number subtracted from.

6. The **Difference**, or **Remainder**, is the result of a subtraction.

7. **Multiplication** is taking a number as many times as there are ones in another.

8. The **Multiplicand** is the number multiplied.

9. The **Multiplier** is the number multiplied by.

10. The **Product** is the result of a multiplication.

11. **Division** is finding how many times one number is contained in another; or finding one of the equal parts of a number.

12. The **Dividend** is the number divided.

13. The **Divisor** is the number by which we divide.

14. The **Quotient** is the result of a division.