ADDITION

LESSON LXVIII.

1. Helen solved 6 examples, Martha solved 5, and Jennie solved 9. How many examples did they all solve?

2. How many goblets are 3 goblets, 8 goblets, and 9 goblets?

3. James learned 5 lessons on Monday, 6 lessons on Tuesday, and 3 lessons on Wednesday. How many lessons did he learn in the three days?

4. How many marbles are 5 marbles, 4 marbles, 6 marbles, and 2 marbles?

5. After spending 2 cents for a slate-pencil and 5 cents for a lead-pencil, James had 5 cents left. How much had he at first?

6. How many dollars are 10 dollars and 8 dollars?

DEFINITIONS.

The process of finding one number that is equal to two or more numbers is called *Addition.*

The result in addition is called the *Sum.*

The *Sign of Addition* is an upright cross: $+$, called *plus.*

The *Sign of Equality* is two short horizontal lines: $=$.

1. What is the sum of 5, 4, 7, and 6?

PROCESS.

5
4
7
6
—
22

EXPLANATION.—For convenience the numbers to be added are arranged so that they stand in a column.

We begin at the bottom to add, thus: 6, 13, 17, 22, and write the sum beneath.

Hence, the sum is 22.

In adding say 6, 13, 17, 22, instead of 6 and 7 are 13 and 4 are 17 and 5 are 22.

SLATE EXERCISES.

Copy and add the following:

(2.)	(3.)	(4.)	(5.)	(6.)
4	5	6	8	3
2	6	5	2	2
3	3	3	3	5
5	4	2	3	1

7. William shot 6 squirrels, Henry shot 8, John shot 5, and James shot 7. How many squirrels did they shoot?

8. Oscar owned 4 cows, Herbert owned 5, George owned 3, and Clarence owned 6. How many cows did the four boys own?
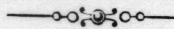
9. A merchant received 5 boxes of oranges one day, 6 the next, and 4 the next. How many boxes of oranges did he receive?

10. A farmer sold 6 cords of wood to one man, 3 cords to another, 8 to another, and 2 to another. How many cords of wood did he sell?

SLATE EXERCISES.

Copy and add the following:

(11.)	(12.)	(13.)	(14.)	(15.)
4	6	3	4	6
7	5	6	7	2
8	7	9	2	3
2	8	2	3	9
3	5	6	5	3
4	1	2	4	2

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LESSON LXIX.

1. What is the sum of 217, 853, and 365?

PROCESS.

$$\begin{array}{r} 2\,1\,7 \\ 8\,5\,3 \\ 3\,6\,5 \\ \hline 1\,4\,3\,5 \end{array}$$

EXPLANATION.—For convenience the numbers to be added are arranged so that units stand under units, and tens under tens, etc.

Beginning at the right hand, each column is added separately.

Thus, $5 + 3 + 7 = 15$, the sum of the units. 15 units are equal to 1 ten and 5 units. The 5 is written under the column of units, and the 1 is reserved to add with the tens.

1 reserved $+ 6 + 5 + 1 = 13$, the sum of the tens. 13 tens are equal to 1 hundred and 3 tens. The 3 is written under the column of tens, and the 1 is reserved to add to the column of hundreds.

1 reserved $+ 3 + 8 + 2 = 14$, the sum of the hundreds. 14 hundreds are equal to 1 thousand and 4 hundreds, which are written in thousands' and hundreds' places in the sum.

In adding, name results only. Thus, instead of saying, 5 and 3 are 8 and 7 are 15, say 5, 8, 15.

SLATE EXERCISES.

Copy and add the following:

(2.)	(3.)	(4.)	(5.)
678	852	338	852
153	365	466	738
261	472	753	645

(6.)	(7.)	(8.)	(9.)
235	512	832	893
415	416	142	416
268	304	624	842
317	497	615	249

10. A man traveled 250 miles by railroad, 325 by steamboat, and 190 by stage. How many miles did he travel?

11. What is the sum of three thousand five hundred twenty-six, eight thousand one hundred twelve, six thousand nine hundred eighteen?

12. A butter-buyer bought 326 pounds of butter from one dairy, 518 pounds from another, and 168 pounds from another. How many pounds of butter did he buy?

13. Find the sum of six hundred seventy-nine, three hundred twenty-eight, and fourteen.

14. Three persons deposited money in a bank. The first put in 192 dollars, the second 466 dollars, and the third 825 dollars. How much money did they deposit?

15. A man paid 400 dollars for a span of horses, 150 dollars for a carriage, and 75 dollars for a harness. How much money did he pay for all?

Copy and add:

(16.)	(17.)	(18.)
6,231	27,638	25,789
1,354	13,925	32,644
4,872	53,164	58,793
3,125	41,538	62,461
3,258	31,604	58,261
4,123	58,643	21,469

(19.)	(20.)	(21.)
6,843	13,462	46,845
2,754	26,541	27,891
6,281	32,716	84,263
4,156	42,683	38,419
7,123	94,275	32,981
8,142	24,239	19,497

(22.)	(23.)	(24.)
4,265	68,465	48,634
3,789	31,892	31,299
4,573	47,468	87,109
4,684	39,210	46,296
4,591	40,009	37,415
8,743	32,567	45,984
4,268	26,849	51,846
5,745	45,265	74,695

SUBTRACTION

LESSON LXX.

1. Herbert earned 19 dollars and gave 7 dollars for a coat. How much had he left?

2. Mary painted 18 pictures and sold 6 of them. How many had she left?

3. If a man earns 15 dollars a week and uses 8 dollars, how many dollars will he have left?

4. A grocer having 22 pounds of lard, sold 11 pounds of it. How many pounds had he left?

5. William had 12 marbles, but gave away 5 of them. How many had he left?

6. 25 pencils are how many more than 10 pencils?

7. From a piece of cloth containing 22 yards, 16 yards were cut. How many yards remained?

8. From a cistern containing 40 gallons of water, 10 gallons were drawn out. How many gallons remained?

9. There are 24 pupils in a school, of whom 13 are boys. How many are girls?

10. One piece of cloth contained 26 yards, and another contained 13 yards. How many yards more were there in the larger piece?

11. A farmer who had 23 horses, sold 11 of them. How many horses had he left?

DEFINITIONS.

The process of finding the difference between two numbers is called *Subtraction.*

The greater of the two numbers is called the *Minuend.*

The lesser of the two numbers is called the *Subtrahend.*

The result obtained by subtracting is called the *Remainder* or *Difference.*

The *Sign of Subtraction* is a short horizontal line : —, called *minus.*

1. From 768 subtract 425.

PROCESS.

768
425
———
343

EXPLANATION.—For convenience the less number is written under the greater, units under units, tens under tens, etc.

Beginning at the right hand, each figure of the subtrahend is subtracted from the corresponding figure of the minuend.

8 units minus 5 units equal 3 units, which are written under the units.

6 tens minus 2 tens equal 4 tens, which are written under the tens.

7 hundreds minus 4 hundreds equal 3 hundreds, which are written under the hundreds. Hence the remainder is 343.

SLATE EXERCISES.

Copy and subtract the following:

(2.)	(3.)	(4.)	(5.)	(6.)
635	876	957	543	665
421	453	835	320	543

LESSON LXXI.

1. From 7425 subtract 2536?

PROCESS.

Minuend   7 4 2 5
Subtrahend   2 5 3 6
——————
Remainder   4 8 8 9

EXPLANATION.— For convenience the less number is written under the greater, units under units, tens under tens, hundreds under hundreds, etc.

Beginning at the right hand, each figure of the subtrahend is subtracted from the corresponding figure of the minuend.

Since 6 units can not be subtracted from 5 units, 1 ten is united with the 5 units. 1 ten is equal to 10 units. 10 units and 5 units are 15 units. 6 units from 15 units leave 9 units. The 9 is written in units' place.

Since 1 of the tens was united with the units, there is but 1 ten left. Because 3 tens can not be subtracted from 1 ten, 1 hundred is united with the 1 ten. 1 hundred is equal to 10 tens. 10 tens and 1 ten are 11 tens. 3 tens from 11 tens leave 8 tens. The 8 is written in tens' place.

Because 5 hundreds can not be subtracted from 3 hundreds, 1 thousand is united with the 3 hundreds. 1 thousand equals 10 hundreds. 10 hundreds and 3 hundreds equal 13 hundreds. 5 hundreds from 13 hundreds leave 8 hundreds. The 8 is expressed in hundreds' place.

Since 1 thousand was added with the hundreds, there are but 6 thousands left. 2 thousands from 6 thousands leave 4 thousands. The 4 is written in thousand's place in the remainder.

Hence the remainder is 4889.

SLATE EXERCISES.

Copy and subtract the following:

(2.)	(3.)	(4.)	(5.)	(6.)
6825	8541	3412	1694	3728
4376	7285	1589	469	1963

Copy and subtract the following:

(7.)	(8.)	(9.)	(10.)	(11.)
4328	6351	4211	6253	4101
2579	5472	3587	4897	2853

12. A paid 8,728 dollars for his farm, and B paid 5,935 dollars for his. How much more did A's farm cost than B's?

13. There were manufactured in a cotton factory 1,857 yards on Monday, and 2,139 yards on Tuesday. How many yards more were manufactured on Tuesday than on Monday?

14. A man who owned 8,754 acres of land, sold 3,215 acres to one company, and 2,154 acres to another. How many acres were unsold?

15. From eight thousand, five hundred sixteen, subtract three thousand, six hundred twenty-four.

16. A mill was purchased for 13,850 dollars, and afterward sold at a loss of 2,175 dollars. How much was received for it?

Copy and subtract the following:

(17.)	(18.)	(19.)	(20.)	(21.)
15,862	14,684	28,465	35,469	99,846
9,839	13.299	13,984	24,983	31,985

(22.)	(23.)	(24.)	(25.)	(26.)
85,724	27,869	35,321	73,814	125,269
46,689	13,780	15,094	15.209	48,736