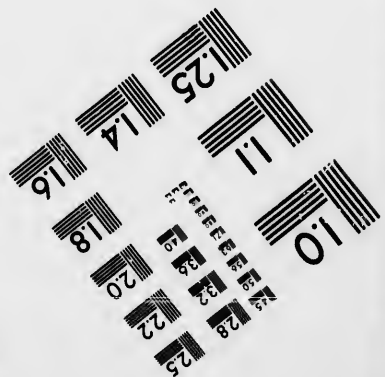
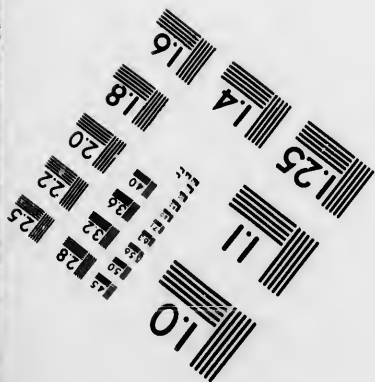
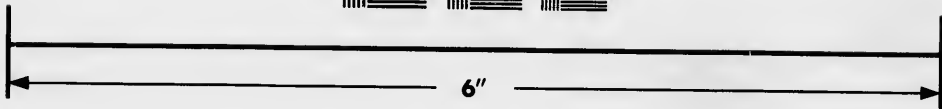
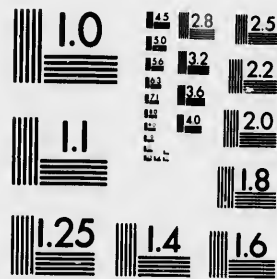


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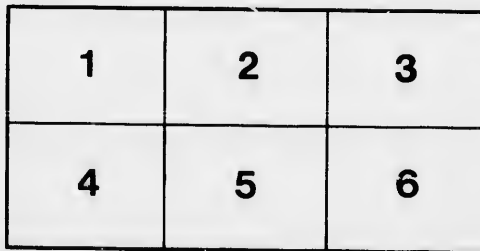
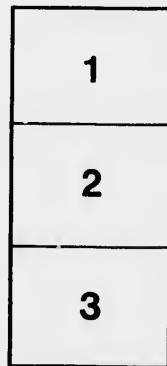
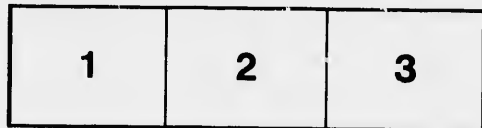
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Primary

Arithmetic



Teacher's Edition.

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ADDITION TABLE.

ADDITION is the process of finding the sum of two or more numbers of the same kind.

The SUM or AMOUNT is the result obtained.

2 and 0 are 2	3 and 0 are 3	4 and 0 are 4
2 and 1 are 3	3 and 1 are 4	4 and 1 are 5
2 and 2 are 4	3 and 2 are 5	4 and 2 are 6
2 and 3 are 5	3 and 3 are 6	4 and 3 are 7
2 and 4 are 6	3 and 4 are 7	4 and 4 are 8
2 and 5 are 7	3 and 5 are 8	4 and 5 are 9
2 and 6 are 8	3 and 6 are 9	4 and 6 are 10
2 and 7 are 9	3 and 7 are 10	4 and 7 are 11
2 and 8 are 10	3 and 8 are 11	4 and 8 are 12
2 and 9 are 11	3 and 9 are 12	4 and 9 are 13
2 and 10 are 12	3 and 10 are 13	4 and 10 are 14
2 and 11 are 13	3 and 11 are 14	4 and 11 are 15
2 and 12 are 14	3 and 12 are 15	4 and 12 are 16
5 and 0 are 5	6 and 0 are 6	7 and 0 are 7
5 and 1 are 6	6 and 1 are 7	7 and 1 are 8
5 and 2 are 7	6 and 2 are 8	7 and 2 are 9
5 and 3 are 8	6 and 3 are 9	7 and 3 are 10
5 and 4 are 9	6 and 4 are 10	7 and 4 are 11
5 and 5 are 10	6 and 5 are 11	7 and 5 are 12
5 and 6 are 11	6 and 6 are 12	7 and 6 are 13
5 and 7 are 12	6 and 7 are 13	7 and 7 are 14
5 and 8 are 13	6 and 8 are 14	7 and 8 are 15
5 and 9 are 14	6 and 9 are 15	7 and 9 are 16
5 and 10 are 15	6 and 10 are 16	7 and 10 are 17
5 and 11 are 16	6 and 11 are 17	7 and 11 are 18
5 and 12 are 17	6 and 12 are 18	7 and 12 are 19
8 and 0 are 8	9 and 0 are 9	10 and 0 are 10
8 and 1 are 9	9 and 1 are 10	10 and 1 are 11
8 and 2 are 10	9 and 2 are 11	10 and 2 are 12
8 and 3 are 11	9 and 3 are 12	10 and 3 are 13
8 and 4 are 12	9 and 4 are 13	10 and 4 are 14
8 and 5 are 13	9 and 5 are 14	10 and 5 are 15
8 and 6 are 14	9 and 6 are 15	10 and 6 are 16
8 and 7 are 15	9 and 7 are 16	10 and 7 are 17
8 and 8 are 16	9 and 8 are 17	10 and 8 are 18
8 and 9 are 17	9 and 9 are 18	10 and 9 are 19
8 and 10 are 18	9 and 10 are 19	10 and 10 are 20
8 and 11 are 19	9 and 11 are 20	10 and 11 are 21
8 and 12 are 20	9 and 12 are 21	10 and 12 are 22
11 and 0 are 11	12 and 0 are 12	13 and 0 are 13
11 and 1 are 12	12 and 1 are 13	13 and 1 are 14
11 and 2 are 13	12 and 2 are 14	13 and 2 are 15
11 and 3 are 14	12 and 3 are 15	13 and 3 are 16
11 and 4 are 15	12 and 4 are 16	13 and 4 are 17
11 and 5 are 16	12 and 5 are 17	13 and 5 are 18
11 and 6 are 17	12 and 6 are 18	13 and 6 are 19
11 and 7 are 18	12 and 7 are 19	13 and 7 are 20
11 and 8 are 19	12 and 8 are 20	13 and 8 are 21
11 and 9 are 20	12 and 9 are 21	13 and 9 are 22
11 and 10 are 21	12 and 10 are 22	13 and 10 are 23
11 and 11 are 22	12 and 11 are 23	13 and 11 are 24
11 and 12 are 23	12 and 12 are 24	13 and 12 are 25

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SUBTRACTION TABLE.

SUBTRACTION is the process of finding the difference between two numbers of the same kind.

The DIFFERENCE or REMAINDER is the result obtained.

1 from 2 leaves	1	2 from 3 leaves	1	3 from 4 leaves	1
1 from 3 leaves	2	2 from 4 leaves	2	3 from 5 leaves	2
1 from 4 leaves	3	2 from 5 leaves	3	3 from 6 leaves	3
1 from 5 leaves	4	2 from 6 leaves	4	3 from 7 leaves	4
1 from 6 leaves	5	2 from 7 leaves	5	3 from 8 leaves	5
1 from 7 leaves	6	2 from 8 leaves	6	3 from 9 leaves	6
1 from 8 leaves	7	2 from 9 leaves	7	3 from 10 leaves	7
1 from 9 leaves	8	2 from 10 leaves	8	3 from 11 leaves	8
1 from 10 leaves	9	2 from 11 leaves	9	3 from 12 leaves	9
1 from 11 leaves	10	2 from 12 leaves	10	3 from 13 leaves	10

4 from 5 leaves	1	5 from 6 leaves	1	6 from 7 leaves	1
4 from 6 leaves	2	5 from 7 leaves	2	6 from 8 leaves	2
4 from 7 leaves	3	5 from 8 leaves	3	6 from 9 leaves	3
4 from 8 leaves	4	5 from 9 leaves	4	6 from 10 leaves	4
4 from 9 leaves	5	5 from 10 leaves	5	6 from 11 leaves	5
4 from 10 leaves	6	5 from 11 leaves	6	6 from 12 leaves	6
4 from 11 leaves	7	5 from 12 leaves	7	6 from 13 leaves	7
4 from 12 leaves	8	5 from 13 leaves	8	6 from 14 leaves	8
4 from 13 leaves	9	5 from 14 leaves	9	6 from 15 leaves	9
4 from 14 leaves	10	5 from 15 leaves	10	6 from 16 leaves	10

7 from 8 leaves	1	8 from 9 leaves	1	9 from 10 leaves	1
7 from 9 leaves	2	8 from 10 leaves	2	9 from 11 leaves	2
7 from 10 leaves	3	8 from 11 leaves	3	9 from 12 leaves	3
7 from 11 leaves	4	8 from 12 leaves	4	9 from 13 leaves	4
7 from 12 leaves	5	8 from 13 leaves	5	9 from 14 leaves	5
7 from 13 leaves	6	8 from 14 leaves	6	9 from 15 leaves	6
7 from 14 leaves	7	8 from 15 leaves	7	9 from 16 leaves	7
7 from 15 leaves	8	8 from 16 leaves	8	9 from 17 leaves	8
7 from 16 leaves	9	8 from 17 leaves	9	9 from 18 leaves	9
7 from 17 leaves	10	8 from 18 leaves	10	9 from 19 leaves	10

10 from 11 leaves	1	11 from 12 leaves	1	12 from 13 leaves	1
10 from 12 leaves	2	11 from 13 leaves	2	12 from 14 leaves	2
10 from 13 leaves	3	11 from 14 leaves	3	12 from 15 leaves	3
10 from 14 leaves	4	11 from 15 leaves	4	12 from 16 leaves	4
10 from 15 leaves	5	11 from 16 leaves	5	12 from 17 leaves	5
10 from 16 leaves	6	11 from 17 leaves	6	12 from 18 leaves	6
10 from 17 leaves	7	11 from 18 leaves	7	12 from 19 leaves	7
10 from 18 leaves	8	11 from 19 leaves	8	12 from 20 leaves	8
10 from 19 leaves	9	11 from 20 leaves	9	12 from 21 leaves	9
10 from 20 leaves	10	11 from 21 leaves	10	12 from 22 leaves	10

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PRIMARY
ARITHMETIC



TEACHER'S EDITION.

TORONTO AND MONTREAL

D. & J. SADLIER & CO.

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PREFACE.

THIS little volume is a book of exercises in Arithmetic. It requires a Teacher. Space is not wasted with model solutions, as the children of the grades for which this book is adapted learn little from the solutions in text-books; they require the living Teacher to explain the work orally and to give clear solutions on the blackboard.

Teachers of elementary classes have not more time to spare to write exercises on the blackboard for the pupils to solve, than Teachers of higher classes, hence the necessity of a small text-book such as this. It will help to keep the pupils usefully employed, and will afford the Teacher more time to instruct his pupils.

The Compound Tables, now little used, such as Troy Weight and Apothecaries' Weight, are not given. Only grains and scruples of the latter are now used, Avoirdupois Weight being used from the ounce upwards as well in mixing medicines as in buying and selling. The ounce Troy or any decimal part of it may yet be used in selling precious stones and metals, but the pound is now out of use. The Measures of Capacity are condensed into one table which gives the essentials.

To help the busy Teacher who has not always time to work out the answers himself is the object of this special Teacher's Edition with answers, and with hints as to the best methods of teaching the elements of Arithmetic.

F. S. C.

TORONTO, *October 18, 1893.*

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HINTS ON TEACHING

Primary Arithmetic.

I.

IDEAS OF NUMBERS—NUMERATION AND NOTATION.

The first lessons of Arithmetic should be given by means of oral exercises. These exercises should be continued during the entire course in Arithmetic. Every subject, even in the most advanced parts of Written Arithmetic, should be introduced by means of oral exercises. The *Arithmometer*, called also the *Abacus* and the *Ball-Frame*, should be used in the first lessons in numbers.

In Primary Arithmetic, the order of instruction is: first, the method, then the reason for it; that is, first, the mechanical part, then the rational. Much precious time has been wasted in primary instruction by the violation of this principle.

In Primary Arithmetic, the method of teaching should be inductive. The pupil should be led to each new idea and process by appropriate questions and illustrations. Mental and Written Arithmetic should go hand in hand in Primary Arithmetic. There are only a few suggestive mental exercises in this book. The Teacher should supplement these.

The first step in the science of Arithmetic is the attainment of numerical ideas. With children, the idea of number begins with the perception of objects, and the idea is developed by a process called counting.

.. ii.
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 .. 81-83
 .. 84-86
 .. 87-88
 .. 89-90
 .. 91-92
 .. 93-95
 .. 96-97
 .. 98-100
 .. 101-135

In counting, do not rest satisfied with the mere naming of numbers in succession, for a child may do this and have no idea of the meaning of the words used. *One, two, three*, may be to it a mere succession of sounds, like *do, re, mi, etc.*, without embodying any idea of collections. Children have been known to run off these words very glibly, even as far as a hundred, without being able to select a dozen grains of corn from a pile.

Children should be required to count with objects. The *Arithmometer* is the most convenient for this. Counting exercises should be continued until the pupils can count readily, and have definite ideas of numbers. Pupils should be taught to count *backwards as well as forwards*. This will be advantageous in learning to subtract.

Arithmetical language is the method by which we express numbers. It is both *oral* and *written*; the former is called *Numeration*, the latter *Notation*.

When the pupils have acquired a little familiarity with the *oral* language of Arithmetic, they should be taught its *written* language. As soon as they have learned a few names of numbers, they should learn to express them in written characters.

Begin with the *nine digits*, and drill the children in naming and writing them until they are perfectly familiar with these characters. They may then use the characters in solving simple problems in Addition and Subtraction, the Teacher giving no problem that involves a number greater than *nine*.

Next proceed with exercises from *ten* to *twenty* from *twenty* to *thirty*, etc., to *ninety-nine*.

The *hundreds* come next. The pupils may be taught to separate numbers into numerical periods, and to name and remember the periods. Vertical lines may be drawn, and the columns headed *units, tens, hundreds*, etc.,

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and the pupils be drilled in writing numbers by putting each figure in its proper column. Care should be taken that the pupils understand the values of the figures in the different columns. Take for example 111 (one hundred and eleven). They should understand that the *one* in the second place is ten times the value of the *one* in the first place, and that the *one* in the third place is ten times the value of the *one* in the second place, and one hundred times the value of the *one* in the first place. The Teacher can illustrate this by putting the number 111 on the blackboard, and put under the *unit* one cent, under the *ten* a ten-cent piece, under the *hundred* a dollar-piece. Or put one splint under the *units*, a bundle of ten splints under the *tens*, and a bundle of one hundred splints under the *hundreds*.¹

The numbers higher than hundreds are taught later on, when required in teaching the elementary rules.

The pupils should be drilled in reading and writing numbers till they are expert in it. Do not hurry over this subject. A thorough knowledge of Numeration and Notation will remove the usual difficulties of the fundamental rules. Do not keep the pupils exclusively at this till they have mastered it, but go on with adding and subtracting, etc., returning to the Numeration and Notation every day, thus keeping up a constant review, and adding a little to what has been previously taught, as the pupils are ready for it. This suggests that the exercises on pp. 1-5 are to be dealt with gradually as required in teaching the fundamental rules.

II.

THE FOUR RULES.

The elementary rules must be thoroughly mastered to insure success in the study of Arithmetic.

¹See another device in Fitch's "Lectures on Teaching," XI., pp. 294-295.

Oral Addition and Subtraction ought to be taught simultaneously. This is done if the Addition and Subtraction tables are taught properly. When children learn that 2 and 2 are 4, they might learn conversely that 2 from 4 leaves 2. A thorough drill this way is the best method of teaching the Addition and Subtraction tables. The children who do not learn these tables usually never become expert in calculation. These exercises should not be confined to abstract numbers. The Arithmometer is a powerful auxiliary in teaching Oral Addition and Subtraction, and it should not be dispensed with.

The following exercise has been found very useful in teaching Oral Addition and Subtraction :

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

Write two columns of figures on the blackboard as indicated in the margin. Call the first column *additive*, and the second *subtractive*. Indicate the number with the pointer, the operation being indicated by the + or - at the head of the column. When a number in the left is indicated, addition is required, but when a figure in the right column is indicated, the pupils will subtract it from the result which has been previously obtained.

This exercise may be conducted sometimes in *concert*, and sometimes *singly*. While one is adding or subtracting, let the others keep careful watch for errors, and thus may be excited a great degree of interest.

Work on slate or paper, and blackboard, should go hand-in-hand with learning to add and subtract mentally. These exercises should at first extend as far as the *elementary sums*, that is, to about 12 and 12 are 24, 12 from 24 leaves 12. So far, Written Addition and Subtraction should go together with the mental exercises, but subsequently it is more convenient to separate them, teaching first Addition and then Subtraction.

Written Addition should be presented in two cases: first, when there is nothing to carry; and second,

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when there is something to carry. In both cases, teach the pupils how to perform the operation without giving any reason for it. The primary object is to make them familiar with the mechanical operations. Subsequently they should be taught the reasons. Much time has been wasted, and many youthful minds injured, by the attempt to have young children give logical forms of explanation before they were prepared for them. With more advanced pupils, require full explanation, in concise, simple, and logical language, showing the reason for every step of the process.

When the pupils are somewhat familiar with Written Addition, they may commence Written Subtraction.

The subject should be presented under two cases : first, to subtract without *borrowing* ; second, when *borrowing* is required in the operation. In subtraction as in addition, teach the mechanical method first ; the reasons may be given later. The following illustration will make the pupils understand the process of *borrowing* :—

$$\begin{array}{r}
 853 = 7 \text{ hundred} + 14 \text{ tens} + 13 \text{ units.} \\
 479 \quad 4 \quad " \quad + 7 \quad " \quad + 9 \quad " \\
 \hline
 374 \quad 3 \quad " \quad \quad 7 \quad " \quad \quad 4 \quad "
 \end{array}$$

9 cannot be taken from 3 ; so borrow one of the tens from 50 (in other words, resolve 53 into 40 and 13). 9 from 13 leaves 4. Set down 4 in the units' place.

7 tens cannot be taken from 4 tens ; so borrow 1 from the 8 hundreds (in other words, resolve 8 hundreds and 4 tens into 7 hundreds and 14 tens). 7 tens from 14 tens leaves 7 tens. Set down 7 in the tens' place.

4 hundreds from 7 hundreds leaves 3 hundreds. Set down 3 in the hundreds' place.

Some may prefer the method of borrowing and paying back, or carrying 1 to the next lower figure ; but it is not so logical nor so easy to explain, and the language is not so self-consistent throughout.

Another method is that of adding 10, which is illustrated as follows :—

$$\begin{array}{r} \text{From 853 take 479.} \\ 853 + 100 + 10 = 8 \text{ hundreds, } 15 \text{ tens, } 13 \text{ units,} \\ 479 + 100 + 10 \quad 5 \quad \text{"} \quad 8 \quad \text{"} \quad 9 \quad \text{"} \\ \hline \quad \quad \quad 3 \quad \text{"} \quad 7 \quad \text{"} \quad 4 \quad \text{"} \end{array}$$

9 from 3 cannot be taken. Add ten to the upper line. 9 from 13 leaves 4. Set down 4.

Having added 10 to the upper line, I add 10 to the lower, 8 tens from 5 tens cannot be taken. Add 10 to the upper line, 8 tens from 15 tens leaves 7 tens. Set down 7.

Having added 10 tens or 1 hundred to the upper line, we must add 1 hundred to the lower; 5 hundreds from 8 hundreds leaves 3 hundreds. Set down 3.

Here, it may be observed, the problem proposed has not been done. 479 has not been taken from 853; but 589 has been taken from 8 hundreds 15 tens 13 units; however, the result is correct, as equal sums have been added to *minuend* and *subtrahend*.

Oral Multiplication and Division should, like Addition and Subtraction, be taught together.

The Multiplication table should be taught as concise Addition. Thus the pupils should be taught that two 2's are four, because 2 and 2 are four; two 3's are 6 because 3 and 3 are six. Use the Arithmometer in teaching the Multiplication table. The pupils will thus see for themselves by counting the balls, that Multiplication is really concise Addition.

That Oral Multiplication and Division should be taught simultaneously is suggested by the logical relation of the two subjects. The two ideas are so intimately related that one grows directly out of the other. Every synthesis suggests naturally its opposite, an analysis. As soon as the pupils learn 4 times 5 are twenty, they are prepared to see that 20 *contains* 5, 4 times. The method suggested is thus founded upon the laws of thought.

Written Multiplication and Division should be taught separately. Multiplication comes first. In the

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first exercises, give numbers that require no carrying; next come numbers that require carrying, and in these, show the necessity of commencing at the right as in Addition and Subtraction. When multiplying by numbers of two or more figures, show why the first figure of the second line is put under the tens, and so on for hundreds and higher numbers.

The following has been found to be a useful exercise for oral multiplication:—

Write the nine digits promiscuously in a horizontal line on the blackboard, as for instance:

1 9 8 2 3 7 6 4 5

Write under these a multiplier, say for instance 4. Each pupil gives the product of one number, without, however, setting it down or noting what is carried.

After three or four tests with the same multiplier, another is substituted and the products found in the same manner.

In teaching Division, commence with easy sums, that are divisible without remainders. Then those that bring out remainders, and show why it is more convenient to commence at the left. To show the process, the first exercises dividing by a digit may be worked by Long Division.

The following example of work by Short Division may help the Teacher to explain the process to his pupils:—

$$\begin{array}{r} \text{Divide } 34624 \text{ by } 7. \\ 7 \overline{) 34624} \\ 4000 = 28000 \div 7 \\ 900 = 6300 \div 7 \\ 40 = 280 \div 7 \\ 6\frac{2}{7} = 42 \div 7 \\ \hline 4946\frac{2}{7} \quad 34624 \div 7 \end{array}$$

To make pupils rapid and accurate in the mechanical processes of adding, subtracting, multiplying, and dividing, the following exercise has proved very successful:—

Write four columns of figures on the blackboard as is represented in the margin with the signs $+$ $-$ \times \div over them to indicate the rule. Point out certain figures with the pointer, the numbers to be added, subtracted, multiplied, or divided, as indicated by the symbol at the head of the column. Care, of course, must be taken not to require a division by a number that is not exactly contained.

$+$	$-$	\times	\div
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

In connection with other lessons in Arithmetic, this exercise may be frequently repeated with advantage.

A few easy exercises in Fractions are introduced on pp. 69-71.

As it is of great advantage to know how to make up bills, children should be taught to do so as soon as they are capable. A few exercises on this subject are given on pp. 72-75.

The teaching of Compound Numbers should be made intuitive by using the weights and measures when practicable.

Cancellation is so useful, even in elementary Arithmetic, it was thought proper to introduce some easy exercises in this Arithmetic.

The aim of the compilers of this little volume was to furnish busy Teachers help in teaching the elements of Arithmetic, by supplying numerous exercises to keep their pupils usefully occupied. Still, this book does not contain all the Teacher wants. Every Teacher requires his own Manuscript Arithmetic for both mental and written work, and he must be capable of extemporizing problems at times, particularly in teaching Mental Arithmetic, because, let it be

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remembered that the teacher is the *living text-book*,
master of all text-books, slave of none.

For further instructions on teaching Elementary Arithmetic, the Teacher is referred to the "Management of Christian Schools," "*Méthodologie*," by Frère Achille, Brooks's "Normal Methods of Teaching," Fitch's "Lectures on Teaching," and Robinson's "Manual of Methods and Organization." These works have been freely used in the compilation of these HINTS ON TEACHING PRIMARY ARITHMETIC.

F. S. C.

TORONTO, *October 18, 1893.*

1 C
2 T
3 T

10 T
11 E
12 T
13 T

10 T
20 T
30 T

Ex

10 T
11 E
12 T
13 T
14 F
15 F
16 S
17 S
18 E
19 N

Primary Arithmetic.

Numeration and Notation.

Exercise I.—*The First Nine Numbers.*

o Naught (Zero).

1 One.	4 Four.	7 Seven.
2 Two.	5 Five.	8 Eight.
3 Three.	6 Six.	9 Nine.

Exercise II.—*From Ten to Twenty.*

10 Ten.	14 Fourteen.	18 Eighteen.
11 Eleven.	15 Fifteen.	19 Nineteen.
12 Twelve.	16 Sixteen.	20 Twenty.
13 Thirteen.	17 Seventeen.	

Exercise III.—*The Tens.*

10 Ten.	40 Forty.	70 Seventy.
20 Twenty.	50 Fifty.	80 Eighty.
30 Thirty.	60 Sixty.	90 Ninety.

Exercise IV.—*All the Numbers of Two Figures.*

10 Ten.	20 Twenty.	30 Thirty.
11 Eleven.	21 Twenty-one.	31 Thirty-one.
12 Twelve.	22 Twenty-two.	32 Thirty-two.
13 Thirteen.	23 Twenty-three.	33 Thirty-three.
14 Fourteen.	24 Twenty-four.	34 Thirty-four.
15 Fifteen.	25 Twenty-five.	35 Thirty-five.
16 Sixteen.	26 Twenty-six.	36 Thirty-six.
17 Seventeen.	27 Twenty-seven.	37 Thirty-seven.
18 Eighteen.	28 Twenty-eight.	38 Thirty-eight.
19 Nineteen.	29 Twenty-nine.	39 Thirty-nine.

EXERCISE IV.—(Continued).

40	Forty.	60	Sixty.	80	Eighty.
41	Forty-one.	61	Sixty-one.	81	Eighty-one.
42	Forty-two.	62	Sixty-two.	82	Eighty-two.
43	Forty-three.	63	Sixty-three.	83	Eighty-three.
44	Forty-four.	64	Sixty-four.	84	Eighty-four.
45	Forty-five.	65	Sixty-five.	85	Eighty-five.
46	Forty-six.	66	Sixty-six.	86	Eighty-six.
47	Forty-seven.	67	Sixty-seven.	87	Eighty-seven.
48	Forty-eight.	68	Sixty-eight.	88	Eighty-eight.
49	Forty-nine.	69	Sixty-nine.	89	Eighty-nine.
50	Fifty.	70	Seventy.	90	Ninety.
51	Fifty-one.	71	Seventy-one.	91	Ninety-one.
52	Fifty-two.	72	Seventy-two.	92	Ninety-two.
53	Fifty-three.	73	Seventy-three.	93	Ninety-three.
54	Fifty-four.	74	Seventy-four.	94	Ninety-four.
55	Fifty-five.	75	Seventy-five.	95	Ninety-five.
56	Fifty-six.	76	Seventy-six.	96	Ninety-six.
57	Fifty-seven.	77	Seventy-seven.	97	Ninety-seven.
58	Fifty-eight.	78	Seventy-eight.	98	Ninety-eight.
59	Fifty-nine.	79	Seventy-nine.	99	Ninety-nine.

Exercise V.—Numbers of Three Figures.

100	One hundred.
101	One hundred and one.
102	One hundred and two.
103	One hundred and three.
104	One hundred and four.
105	One hundred and five.
106	One hundred and six.
107	One hundred and seven.
108	One hundred and eight.

EXERCISE V.—(Continued).

- 109 One hundred and nine.
 110 One hundred and ten.
 211 Two hundred and eleven.
 312 Three hundred and twelve.
 413 Four hundred and thirteen.
 514 Five hundred and fourteen.
 615 Six hundred and fifteen.
 716 Seven hundred and sixteen.
 817 Eight hundred and seventeen.
 918 Nine hundred and eighteen.
 119 One hundred and nineteen.
 820 Eight hundred and twenty.
 121 One hundred and twenty-one.
 432 Four hundred and thirty-two.
 333 Three hundred and thirty-three.
 244 Two hundred and forty-four.
 745 Seven hundred and forty-five.
 656 Six hundred and fifty-six.
 457 Four hundred and fifty-seven.
 968 Nine hundred and sixty-eight.
 269 Two hundred and sixty-nine.
 170 One hundred and seventy.
 571 Five hundred and seventy-one.
 272 Two hundred and seventy-two.
 773 Seven hundred and seventy-three.
 474 Four hundred and seventy-four.
 875 Eight hundred and seventy-five.
 880 Eight hundred and eighty.
 381 Three hundred and eighty-one.
 189 One hundred and eighty-nine.
 999 Nine hundred and ninety-nine.

Exercise VI.—*Numbers from 4 to 12 figures*

- 2,005 Two thousand and five.
- 4,024 Four thousand and twenty-four.
- 10,007 Ten thousand and seven.
- 24,019 Twenty-four thousand and nineteen.
- 300,027 Three hundred thousand and twenty-seven.
- 504,204 Five hundred and four thousand, two hundred and four.
- 2,000,009 Two million and nine.
- 3,004,207 Three million, four thousand, two hundred and seven.
- 10,005,195 Ten million, five thousand, one hundred and ninety-five.
- 65,045,110 Sixty-five million, forty-five thousand, one hundred and ten.
- 300,010,060 Three hundred million, ten thousand and sixty.
- 406,009,056 Four hundred and six million, ten thousand and fifty-six.
- 4,075,109,346 Four billion, seventy-five million, one hundred, nine thousand, three hundred and forty-six.
- 24,017,000,245 Twenty-four billion, seventeen million, two hundred and forty-five.
- 150,015,145,307 One hundred and fifty billion, fifteen million, one hundred and forty-five thousand, three hundred and seven.

Exercise VII.—*Roman Numerals.*

I One.	X Ten.	XIX Nineteen.
II Two.	XI Eleven.	XX Twenty.
III Three.	XII Twelve.	XXX Thirty.
IV Four.	XIII Thirteen.	XL Forty.
V Five.	XIV Fourteen.	L Fifty.
VI Six.	XV Fifteen.	LX Sixty.
VII Seven.	XVI Sixteen.	LXX Seventy.
VIII Eight.	XVII Seventeen.	LXXX Eighty.
IX Nine.	XVIII Eighteen.	XC Ninety.

C One hundred.	DC Six hundred.
CC Two hundred.	CM Nine hundred.
CD Four hundred.	M One thousand.
D Five hundred.	MM Two thousand.

MDCCCXCIII Eighteen hundred and ninety-three.

Exercise VIII.—*Signs in Arithmetic.*

+ is the sign of addition. It is called *plus*.

− is the sign of subtraction. It is called *minus*.

× is the sign of multiplication. It is called *multiplied by*.

÷ is the sign of division. It is called *divided by*.

= is the sign of equality. It is called *equals* or *equal*.

Exercises in Addition.

Exercise IX.

(1)	1 1	(20)	$\frac{3}{6}$	(39)	$\frac{9}{9}$	(58)	$\frac{12}{25}$	(77)	$\frac{57}{92}$	(96)	$\frac{42}{39}$
(2)	1 2	(21)	$\frac{3}{7}$	(40)	$\frac{3}{8}$	(59)	$\frac{13}{34}$	(78)	$\frac{72}{29}$	(97)	$\frac{57}{19}$
(3)	1 3	(22)	$\frac{4}{4}$	(41)	$\frac{2}{9}$	(60)	$\frac{14}{42}$	(79)	$\frac{26}{57}$	(98)	$\frac{24}{89}$
(4)	1 4	(23)	$\frac{4}{5}$	(42)	$\frac{4}{7}$	(61)	$\frac{17}{21}$	(80)	$\frac{87}{17}$	(99)	$\frac{76}{27}$
(5)	1 5	(24)	$\frac{4}{6}$	(43)	$\frac{3}{9}$	(62)	$\frac{45}{23}$	(81)	$\frac{48}{39}$	(100)	$\frac{79}{85}$
(6)	1 6	(25)	$\frac{5}{5}$	(44)	$\frac{4}{8}$	(63)	$\frac{26}{32}$	(82)	$\frac{57}{27}$	(101)	$\frac{86}{97}$
(7)	1 7	(26)	$\frac{5}{6}$	(45)	$\frac{5}{4}$	(64)	$\frac{45}{23}$	(83)	$\frac{23}{67}$	(102)	$\frac{59}{79}$
(8)	1 8	(27)	$\frac{5}{7}$	(46)	$\frac{6}{3}$	(65)	$\frac{54}{23}$	(84)	$\frac{56}{34}$	(103)	$\frac{96}{79}$
(9)	1 9	(28)	$\frac{5}{8}$	(47)	$\frac{7}{2}$	(66)	$\frac{48}{50}$	(85)	$\frac{89}{99}$	(104)	$\frac{49}{88}$
(10)	2 2	(29)	$\frac{5}{9}$	(48)	$\frac{4}{9}$	(67)	$\frac{64}{24}$	(86)	$\frac{47}{25}$	(105)	$\frac{74}{84}$
(11)	2 3	(30)	$\frac{6}{6}$	(49)	$\frac{6}{5}$	(68)	$\frac{16}{50}$	(87)	$\frac{77}{13}$	(106)	$\frac{89}{65}$
(12)	2 4	(31)	$\frac{6}{7}$	(50)	$\frac{7}{4}$	(69)	$\frac{14}{75}$	(88)	$\frac{35}{45}$	(107)	$\frac{47}{74}$
(13)	2 5	(32)	$\frac{6}{8}$	(51)	$\frac{8}{3}$	(70)	$\frac{45}{54}$	(89)	$\frac{75}{45}$	(108)	$\frac{87}{84}$
(14)	2 6	(33)	$\frac{6}{9}$	(52)	$\frac{9}{2}$	(71)	$\frac{95}{30}$	(90)	$\frac{87}{84}$	(109)	$\frac{76}{85}$
(15)	2 7	(34)	$\frac{7}{7}$	(53)	$\frac{8}{7}$	(72)	$\frac{32}{43}$	(91)	$\frac{47}{28}$	(110)	$\frac{57}{68}$
(16)	2 8	(35)	$\frac{7}{8}$	(54)	$\frac{9}{8}$	(73)	$\frac{23}{56}$	(92)	$\frac{45}{29}$	(111)	$\frac{89}{57}$
(17)	3 3	(36)	$\frac{7}{9}$	(55)	$\frac{6}{4}$	(74)	$\frac{45}{23}$	(93)	$\frac{76}{14}$	(112)	$\frac{79}{85}$
(18)	3 4	(37)	$\frac{8}{8}$	(56)	$\frac{7}{3}$	(75)	$\frac{42}{35}$	(94)	$\frac{57}{18}$	(113)	$\frac{77}{69}$
(19)	3 5	(38)	$\frac{8}{9}$	(57)	$\frac{8}{2}$	(76)	$\frac{75}{44}$	(95)	$\frac{74}{49}$	(114)	$\frac{96}{77}$

Exercise X.

115. Add by twos as far as 100.
 116. Add by threes as far as 99.
 117. Add by two and three alternately as far as 100.
 118. Add by fours as far as 100.
 119. Add by three and four alternately as far as 100.
 120. Add by fives as far as 100.
 121. Add by four and five alternately as far as 100.
 122. 6 bats and 3 bats are how many bats?
 123. 4 boys and 5 boys are how many boys?
 124. 7 dollars and 2 dollars are how many dollars?
 125. 2 cents and 5 cents are how many cents?
 126. 4 girls and 3 girls are how many girls?
 127. 7 houses and 5 houses are how many houses?
 128. 5 fishes and 8 fishes are how many fishes?
 129. 9 tops and 1 top are how many tops?
 130. A boy paid 1 cent for a stick of candy and 2 cents for an apple; how many cents did both cost?
 131. John's father gave him two apples, and his mother gave him two more; how many apples had John then?
 132. George had 4 chestnuts and Joseph gave him 3; how many had George then?
 133. If a pencil cost 2 cents, and a copy 6 cents; how many cents will both cost?
 134. William lost 7 marbles and has 6 remaining; how many had he at first.
 135. There are 8 birds on one tree, and 9 on another; how many birds on both trees?

96)	42
	39
97)	57
	19
98)	24
	89
99)	76
	27
100)	79
	85
101)	86
	97
102)	59
	79
103)	96
	79
104)	49
	88
105)	74
	84
106)	89
	65
107)	47
	74
108)	87
	84
109)	76
	85
110)	57
	68
111)	89
	57
112)	79
	85
113)	77
	69
114)	96
	77

Exercise XI.

(136)	367 479	(157)	543 642	(178)	489 557	(199)	827 374
(137)	454 279	(158)	786 947	(179)	519 619	(200)	659 307
(138)	457 395	(159)	457 416	(180)	795 370	(201)	467 959
(139)	695 296	(160)	615 470	(181)	957 589	(202)	879 857
(140)	507 279	(161)	654 589	(182)	676 544	(203)	859 963
(141)	165 497	(162)	450 795	(183)	457 829	(204)	676 943
(142)	298 189	(163)	907 799	(184)	749 676	(205)	657 956
(143)	347 474	(164)	977 517	(185)	417 728	(206)	456 105
(144)	579 145	(165)	976 987	(186)	555 676	(207)	987 304
(145)	157 279	(166)	456 324	(187)	476 494	(208)	367 456
(146)	176 394	(167)	427 917	(188)	574 632	(209)	457 279
(147)	354 765	(168)	424 695	(189)	528 896	(210)	567 988
(148)	721 934	(169)	987 989	(190)	440 579	(211)	509 905
(149)	577 495	(170)	677 979	(191)	746 957	(212)	896 478
(150)	877 741	(171)	257 424	(192)	764 797	(213)	934 676
(151)	509 897	(172)	434 325	(193)	791 789	(214)	695 987
(152)	799 587	(173)	910 824	(194)	685 469	(215)	546 643
(153)	478 987	(174)	943 850	(195)	424 527	(216)	545 546
(154)	746 795	(175)	670 957	(196)	854 975	(217)	475 837
(155)	915 839	(176)	957 854	(197)	827 954	(218)	543 532
(156)	476 649	(177)	415 394	(198)	357 489	(219)	641 572

Exercise XII.

220. Add by threes, from 2 to 110.
(Thus, 2 and 3 are 5, and 3 are 8, and 3 are 11, etc.)

221. Add by twos, from 3 to 81.

222. Add by threes, from 1 to 61.

223. Add by fours, from 3 to 115.

224. Add by fives, from 2 to 77.

225. Add by sixes, from 3 to 57.

226. Add by sevens, from 4 to 116.

227. Add by sevens, from 6 to 118.

228. Add by eights, from 1 to 89.

229. Add by eights, from 5 to 69.

230. Add by eights, from 7 to 55.

231. Add by nines, from 3 to 102.

232. Add by nines, from 4 to 76.

233. Add by nines, from 8 to 116.

234. Add by threes, from 11 to 44.

235. Add by fives, from 7 to 47.

236. Add by sevens, from 9 to 86.

237. A news boy sold 10 papers in the morning and 7 in the afternoon; how many papers did he sell during the day?

238. If Joseph has 3 cents in one pocket and 10 cents in another; how many cents has he?

239. William paid 12 cents for a slate and 1 cent for a pencil; what did he pay for both?

240. There are 17 trees in one field and 9 in another; how many trees in the two fields?

827
 374
 659
 307
 467
 959
 879
 857
 859
 963
 676
 943
 657
 956
 456
 105
 987
 304
 367
 456
 457
 279
 567
 988
 509
 905
 896
 478
 934
 676
 695
 987
 546
 643
 545
 546
 475
 837
 543
 532
 641
 572

Exercise XIII.

(241) 807.976 5.624 564.807	(255) 310.407 76.415 592.808	(269) 85.837 352.934 587.952	(283) 827.456 925.834 834.937
(242) 577.409 689.476 6.747	(256) 875.449 996.898 2.824	(270) 357.447 76.879 649.754	(284) 824.907 933.829 54.927
(243) 845.467 37.854 957.674	(257) 82.742 924.895 752.566	(271) 304.825 77.156 789.654	(285) 456.874 27.956 769.674
(244) 6.976 827.845 535.694	(258) 784.805 492.827 4.754	(272) 452.372 9.694 877.783	(286) 47.854 957.970 809.676
(645) 70.459 425.716 409.358	(259) 6.823 989.347 724.839	(273) 897.476 684.753 778.694	(287) 476.089 748.678 88.482
(246) 5.027 376.877 736.954	(260) 57.924 984.697 725.833	(274) 776.827 84.785 492.826	(288) 987.854 64.247 809.456
(247) 405.789 6.854 75.768	(261) 954.356 876.977 767.898	(275) 453.821 74.759 859.667	(289) 741.854 7.465 3.978
(248) 67.425 576.324 847.907	(262) 79.080 854.974 569.677	(276) 217.904 54.825 679.964	(290) 4.307 645.879 474.307
(249) 76.515 689.065 276.709	(263) 64.807 52.934 879.768	(277) 376.924 433.827 899.755	(291) 456.817 96.209 817.456
(250) 671.079 9.906 567.765	(264) 4.927 98.896 679.589	(278) 657.985 984.752 895.674	(292) 327.410 7.689 456.354
(251) 275.824 197.489 356.490	(265) 894.796 457.877 586.987	(279) 423.590 677.884 899.791	(293) 807.976 6.467 853.432
(252) 24.547 752.976 376.549	(266) 53.827 677.924 789.789	(280) 897.452 920.672 746.794	(294) 683.421 6.431 65.390
(253) 824 294.731 481.835	(267) 347 827.985 794.276	(281) 76.009 984.888 457.697	(295) 65.348 7.340 658.291
(254) 452.827 76.679 3.742	(268) 7.952 972.354 786.546	(282) 904.524 876.877 928.395	(296) 768.453 676.921 678.945

Exercise XIV.

Add the following :

27.456
25.834
34.937

24.907
33.829
54.927

156.874
27.956
169.674

47.854
357.970
809.676

476.089
748.678
88.482

987.854
64.247
809.456

741.854
7.465
3.978

4.307
645.879
474.307

456.817
96.209
817.456

327.410
7.689
456.354

807.976
6.467
853.432

683.421
6.431
65.390

65.348
7.340
658.291

768.453
676.921
678.945

297. Three hundred ninety ; eight hundred thirty-six ; three hundred twenty-six ; and two hundred nine.

298. Three thousand, forty-eight ; one thousand, four hundred eighteen ; one thousand, two hundred fifty-two ; and one thousand, nine hundred ninety-one.

299. Eight-hundred two ; two hundred seventy-two ; two hundred sixteen ; and five hundred thirty-nine.

300. Six hundred ten ; one thousand, six hundred thirty-six ; four thousand, eight hundred ninety-seven ; seven hundred one ; eight hundred thirty-three ; and seven hundred ninety-six.

301. One thousand, two hundred two ; five thousand, five hundred five ; six hundred seventy-eight ; two thousand fifty one ; and one thousand, three hundred thirty-nine.

302. Two thousand, three hundred sixty-seven ; eight hundred seven ; five hundred twenty-four ; and three thousand, one hundred seventy.

303. Four thousand, five hundred seventy-eight ; nine hundred sixty-one ; five hundred seventy-two ; and three hundred sixty-three.

304. One thousand, three hundred nine ; four thousand, three hundred twenty-nine ; one thousand, two hundred sixty-five ; three hundred eight ; and four hundred twenty-six.

Exercise XV.

(305) 59.827 747.365 984.576	(319) 676.834 847.885 989.769	(333) 654.957 78.786 547.679	(347) 376.474 928.357 877.676
(306) 364.907 671.596 795.879	(320) 495.837 72.224 795.477	(334) 529.234 876.789 798.576	(348) 76.984 487.876 549.879
(307) 754.607 837.925 945.769	(321) 37.904 986.876 877.795	(335) 257.470 988.742 599.899	(349) 676 456.894 972.397
(308) 759.823 875.453 694.937	(322) 676.976 799.884 685.544	(336) 454.376 756.079 489.215	(350) 6.795 694.846 653.957
(309) 924.674 787.743 896.395	(323) 823.441 937.544 239.675	(337) 7.809 356.377 254.594	(351) 849 753.476 977.689
(310) 789.651 666.795 584.888	(324) 824.954 987.889 769.564	(338) 376.476 5.654 858.896	(352) 87.654 796.978 578.697
(311) 677.491 5.887 976.642	(325) 834.905 976.827 895.795	(339) 854.217 785.829 677.549	(353) 450.017 696.469 807.676
(312) 837.454 928.367 676.897	(326) 839.455 768.649 897.795	(340) 34.827 376.956 798.898	(354) 307 45.654 807.456
(313) 576.824 794.952 977.495	(327) 698.929 837.651 596.746	(341) 87.851 676.724 375.697	(355) 7.426 874.974 954.369
(314) 835.753 676.885 898.776	(328) 954.653 497.974 689.879	(342) 78.947 654.705 495.827	(356) 67.450 698.795 476.887
(315) 754.829 878.937 989.773	(329) 654.376 795.497 689.879	(343) 276.509 484.821 256.776	(357) 675.302 63.320 503.686
(316) 854.947 967.876 789.767	(330) 677.894 895.957 577.676	(344) 237.864 49.874 895.597	(358) 680.312 362.319 631.865
(317) 654.576 976.787 898.694	(331) 5.276 576.423 760.554	(345) 624.079 937.484 584.979	(359) 654.321 987.654 135.790
(318) 654.789 773.212 564.342	(332) 676.345 834.557 896.743	(346) 678.879 95.549 276.747	(360) 641.653 430 601.321

Exercise XVI.

6.474 28.357 77.076 76.984 87.876 49.879 676 56.894 72.397 6.795 94.846 53.957 849 753.476 77.689 87.654 796.978 578.697 450.017 606.469 807.676 307 45.654 807.456 7.426 874.974 954.369 67.450 698.795 476.887 675.302 63.320 503.686 680.312 362.319 631.865 654.321 987.654 135.790 641.653 430 601.321	(361) 943.575.423 854.349.870 975.750.249 (362) 745.654.870 94.875.984 734.954.877 (363) 476.854.984 7.675.895 654.764.954 (364) 576.895.752 495.847.907 9.954.634 (365) 477.546.789 585.678.897 246.794.976 (366) 524.677.875 676.954.967 795.896.789 (367) 74.954.896 745.876.547 6.798.798 (368) 376.457.897 453.376.586 547.684.794 (369) 52.576.827 576.497.899 494.785.675 (370) 743.210.827 457.654.923 596.795.954 (371) 574.654.787 9.876.981 785.495.875 (372) 351.945.095 823.954.851 687.895.754 (373) 654.234.654 568.976.456 876.889.999 (374) 657.954 862.945.677 452.789.654	(375) 457.676.915 376.485.854 887.567.976 (376) 543.285.654 791.396.787 887.567.976 (377) 576.451.324 455.934.656 507.957.823 (378) 587.654.927 674.987.634 486.856.858 (379) 7.453.876 954.796.685 876.676.793 (380) 432.765.321 754.674.807 897.987.984 (381) 567.795.984 687.987.877 793.676.785 (382) 567.898 547.676.784 325.479.977 (383) 476.307.827 574.587.954 955.496.775 (384) 7.675.432 234.507.899 475.376.798 (385) 375.452.677 7.546.984 578.667.546 (386) 230.076.475 791.989.396 484.657.987 (387) 476.795.675 764.579.889 507.687.964 (388) 545.657.899 437.964.542 654.876.788	(389) 195.234.357 7.676.968 596.798.879 (390) 452.373.464 786.954.789 694.876.998 (391) 796.457.676 687.794.794 8.968.587 (392) 584.653.795 695.796.817 776.887.984 (393) 457.576.324 6.847.987 689.698.798 (394) 674.856 974.845.922 64.596.847 (395) 74.285 97.889.658 854.397.897 (396) 7.950.074 853.987.695 974.876.956 (397) 74.234.654 989.876.497 647.987.854 (398) 476.874 75.789.693 896.797.784 (399) 65.489 7.688.987 986.854.576 (400) 543.835.954 835.854.829 924.988.556 (401) 924.654.829 364.868.829 987.876.329 (402) 60.654.576 276.908.854 434.827.214
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Exercise XVII.

Add the following :

403. Three hundred sixty-five thousand, four hundred sixty-two ; five hundred sixty thousand, four hundred twenty-seven ; four hundred five thousand seven hundred sixty-three ; and one hundred thirty-six thousand, one hundred sixty-six.

404. Three hundred twenty ; four hundred fourteen thousand, five hundred ninety ; and eight hundred seventy.

405. Two thousand, five hundred thirty-seven ; nine thousand, three hundred eighty-one ; six hundred sixty-eight ; nine hundred ; and fifty-nine thousand, seven hundred forty-four.

406. Seven hundred three ; one thousand, five hundred ninety ; one hundred twenty ; eight hundred thousand, sixty-six ; and three thousand, seven hundred seventy-seven.

407. Two hundred ten thousand, three hundred eight ; twenty-eight thousand, seven hundred fifty-six ; three thousand, one hundred forty-two ; and thirteen thousand, seven hundred fifty.

408. One hundred nineteen thousand, ninety-four ; two hundred fifty-five thousand, two hundred seventeen ; three hundred thousand, sixty-five ; and sixty-eight thousand, six hundred.

409. Sixty-four thousand, four hundred sixty-seven ; one thousand, five hundred twenty ; seven thousand, nine hundred thirty-six ; thirteen thousand, seven hundred forty-four ; nine thousand, nine hundred fifty-five ; and eleven thousand, eight hundred twenty two.

Exercise XVIII.

Find the sum of:

- (410) $576.794.652 + 467.887.789 + 689.975.898.$
 (411) $354.796.452 + 477.689.376 + 766.875.889$
 (412) $454.764.896 + 897.589 + 689.985.667.$
 (413) $413.575.654 + 245.689.897 + 987.347.566.$
 (414) $567.984.321 + 495.675.474 + 689.797.689.$
 (415) $4.347.651 + 865.755.561 + 447.675.384.$
 (416) $327.454.276 + 789.567.485 + 898.635.743.$
 (417) $645.606.997 + 2.754.884 + 567.875.776.$
 (418) $475.645.751 + 547.896.946 + 689.987.875.$
 (419) $456.374.854 + 967.653.485 + 526.789.596.$
 (420) $546.276.927 + 627.792 + 797.794.889.$
 (421) $677.455.475 + 794.587.495 + 685.694.784.$
 (422) $7.565.654 + 49.677.789 + 488.754.347.$
 (423) $577.235.497 + 689.898.696 + 845.976.375.$
 (424) $745.676.452 + 356.789.584 + 789.898.976.$
 (425) $745.676.452 + 827.952.365 + 989.899.765.$
 (426) $7.652.927 + 535.746.795 + 676.898.888.$
 (427) $769.654.327 + 452.577.889 + 678.789.918.$
 (428) $575.479.884 + 657.584.927 + 789.697.547.$
 (429) $328.450.676 + 821.976.217 + 796.897.898.$
 (430) $567.452.377 + 477.354.889 + 889.987.996.$
 (431) $5.677.452 + 436.584.796 + 797.895.974.$
 (432) $325.674.827 + 747.932.674 + 569.485.895.$
 (433) $415.956.327 + 825.937.454 + 976.878.796.$
 (434) $327.457.652 + 794.875.954 + 686.956.869.$
 (435) $798.653.450 + 7.987.987 + 956.896.789.$
 (436) $754.650.827 + 675.798.354 + 757.654.976.$
 (437) $650.475.875 + 6.984.989 + 889.796.854$
 (438) $764.576.776 + 476.884.894 + 987.997.987.$
 (439) $74.678.432 + 7.465.374 + 847.953.459$
 (440) $546.876.307 + 9.046.754 + 74.857.937.$
 (441) $436.807 + 47.659.874 + 856.524.325.$
 (442) $57.435.607 + 842.954.824 + 95.676.936.$
 (443) $70.457 + 8.984.604 + 976.867.539.$
 (444) $7.650.342 + 974.379.457 + 83.085.768.$
 (445) $45.789 + 75.376.457 + 83.085.768.$

Exercise XIX.

(446)	56.276.454 367.796.709 6.719.187 577.485.855	(456)	725.076.482 894.675 489.765.798 78.987.864	(466)	54.307 489.787.596 748.995.984 687.543.753
(447)	692.976 427.985.741 4.851.907 795.291.752	(457)	20.742.345 679.659.419 848.487.578 987.894.684	(467)	456.884.569 677.958.888 3.735.894 942.469.952
(448)	76.984.316 6.569.897 978.087.705 324.829.496	(458)	434.579 478.527.624 2.795.467 984.686.386	(468)	987.654.327 767.454 5.846.785 966.535.592
(449)	74.826.456 96.749 895.735.276 498.307.476	(459)	789.894.697 6.546.754 73.836 454.287.948	(469)	74.952 987.785.874 805.289.289 746.347.667
(450)	576.450.079 94.196.376 65.438 360.898.275	(460)	356.754.651 7.447.176 78.489 98.869.589	(470)	7.847.976 346.964.624 974.548.935 73.856.907
(451)	797.654.829 776.819 15.435.839 596.787.976	(461)	6.798.954 452.679.587 7.665 777.423.749	(471)	742.345 57.496.567 879.787.896 544.087.674
(452)	485.676 497.897.987 689.845 46.769.779 7.987.973	(462)	457.887.954 378.798.237 596.576.765 185.964.476 97.851.953	(472)	874.325 167.489.874 7.678.978 934.854.674 84.421
(453)	654.874.954 68.987.876 796.589 895.458.795 992.983.756	(463)	276.457.844 384.584.876 997.695.897 865.768.775 8.461.863	(473)	8.450.753 407.674.829 799.456.948 934.854.674 947.815
(454)	57.874.089 4.786.774 875.697.897 965.665 991.892	(464)	437.576.874 54.694.969 869.747.487 985.853.598 986.921	(474)	76.874 4.768.959 659.897.864 485.974.678 1.587
(455)	476.542.827 69.874.386 297.486.674 4.235.745 872.672.961	(465)	596.832.542 7.447.176 78.489 94.869.598 842.595.853	(475)	787.695 989.942.894 7.426.876 894.247.654 98.921

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Exercise XX.—Canadian Currency.

The *Sign* \$ written before a number signifies *dollars*. Thus, the expression \$120 is read *one hundred twenty dollars*.

Dollars and *cents* may be written together, the *cents* being separated from the *dollars* by a point. Thus, the expression \$25.35 is read *25 dollars and 35 cents*.

Express, by proper signs and figures, the following exercises :

476. Seven dollars and twenty-four cents.
477. Sixteen dollars and forty cents.
478. Forty-seven dollars and sixty-three cents.
479. Ninety-nine dollars and fourteen cents.
480. Eighty-seven cents.
481. Seventy-five cents.
482. Eleven dollars and eleven cents.
483. Fifty dollars and twenty-five cents.
484. Nineteen dollars and three cents.
485. Fifty cents. Eighty-five cents.
486. Three dollars and fifty cents.
487. Sixty-two dollars and nine cents.
488. Thirty-seven cents.
489. Sixty-two cents.
490. Thirty-three dollars and one cent.
491. Seventy dollars and ten cents.
492. Four cents. Eight cents.
493. Thirty-three cents. Five cents.
494. One hundred dollars and three cents.

In writing dollars and cents for the purpose of adding them, the separating points must stand in the same column.

54.307
 787.596
 995.984
 543.753
 884.569
 958.888
 735.894
 469.952
 654.327
 767.454
 846.785
 535.592
 74.952
 785.874
 289.289
 5347.667
 7847.976
 6964.624
 4548.935
 3856.907
 742.345
 7496.567
 9787.896
 44087.674
 874.325
 57489.874
 7678.978
 34854.674
 84.421
 8450.753
 07674.829
 99456.948
 34854.674
 947.815
 76.874
 4768.959
 659.897.864
 485.974.678
 1.587
 787.695
 989.942.894
 7.426.876
 894.247.654
 98.921

Exercise XXI.

Add :

- (495) $824.927.552 + 637.654.674 + 876.376.981 + 8.198.396.$
 (496) $7.692.772 + 79.754.276 + 936.577.424 + 764.798.234.$
 (497) $875.1.404 + 784.652.753 + 906.874.967 + 3.435.899.$
 (498) $7.854.254 + 985.676.376 + 54.476 + 776.649.867.$
 (499) $476.217.824 + 376.981 + 988.765.324 + 67.472.$
 (500) $749.827.856 + 776.874 + 978.594.659 + 67.989.377.$
 (501) $7.827.432 + 54.827 + 987.675.372 + 899.466.754.$
 (502) $7.808 + 889.766.554 + 834.251 + 977.407.307.$
 (503) $456.874 + 6.378.496 + 98.899.577 + 885.293.654.$
 (504) $578.907.007 + 423.569.456 + 9.823.576 + 476.354.985.$
 (505) $456.258.987 + 76.898 + 5.789.543 + 878.265.303.$
 (506) $7.417 + 7.376.453 + 96.543.234 + 672.354.831.$
 (507) $654.789 + 988.472.925 + 6.347.227 + 40.908.$
 (508) $25.974 + 984.567.832 + 7.976.765 + 468.988.598.$
 (509) $455.276.827 + 374.455.934 + 933.821 + 9.837.755)$
 (510) $796.487.825 + 4.754.954 + 92.236 + 475.235.642.$
 (511) $54.336 + 452.576.345 + 4.987.894 + 985.891.237.$
 (512) $576.476.823 + 79.417 + 643.217.895 + 897.988.589.$
 (513) $452.376.824 + 1.364.795 + 898.987.885 + 856.676.$
 (514) $56.234 + 984.572.373 + 479.668.542 + 854.684.963.$
 (515) $924.345.706 + 56.227 + 4.376.825 + 896.269.824.$
 (516) $746.834.232 + 988.978.345 + 75.576 + 89.452.372.$
 (517) $769.827.405 + 37.409.754 + 363.429 + 576.217.674.$
 (518) $74.284.504 + 834.976 + 427.677.689 + 957.854.376.$
 (519) $75.487.634 + 807.976.469 + 789.547.978 + 407.906.807.$
 (520) $745.648 + 845.976.408 + 977.689.987 + 456.807.542.$
 (521) $8.745.677 + 896.675 + 976.674.344 + 854.954.956.$
 (522) $674.816 + 47.989.745 + 57.698.579 + 984.874.769.$
 (523) $435.649 + 89.376.874 + 497.694.587 + 74.654.806.$
 (524) $45.608.425 + 906.425.679 + 849.579.858 + 708.754.376.$
 (525) $832.106.687 + 219.368.306 + 864.302.689 + 33.291.836.$
 (526) $901.830.193 + 832.602.632 + 392.301.683 + 3.129.632.$
 (527) $99.213.310 + 760.367.193 + 630.123.683 + 43.231.686.$
 (528) $34.913 + 329.131 + 438 + 9.028 + 907 + 74.$
 (529) $432.103 + 831.248.916 + 832.398 + 3.089 + 704.$
 (530) $632.912.631 + 236.863.923 + 643.286.787.$

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Exercise XXII.

(531) 674.359.864 7.677.952 898.547.563 936.459	(542) 4.457.988 25.678.796 654.786.679 97.676.927	(553) 45.473.654 30.369.807 6.489.874 78.907.576
(532) 496.577 476.784.896 987.929.654 856.934.761	(543) 45.675.407 6.789.854 307.576.376 489.236.579	(554) 45.678.907 7.422.875 76.689.387 475.654.976
(533) 357.654 827.964.276 789.853 496.677.927	(544) 3.547.897 205.685.929 74.354.586 506.875.496	(555) 4.809.675 307.685.494 84.296.972 807.574.676
(534) 74.927 354.213.455 456.717 896.546.825	(545) 876.452 34.687.376 7.898.957 456.976.654	(556) 5.694.275 48.769.542 743.607.929 789.876
(535) 76.542 653.476 764.589.985 579.698.794	(546) 3.458.542 47.977.575 829.457 476.853.452	(557) 784.807 45.487.653 4.569.876 937.624.845
(536) 4.834 759.787.672 4.952.892 979.894.927	(547) 647.897 453.987.374 8.899.899 951.987.676	(558) 475.879 674.275.827 7.454 3.976.798
(537) 979.678.899 76.897 879.654.393 798.989.789	(548) 475.676.475 67.894.357 829.678.976 7.496.345	(559) 7.484 4.948.679 807.456.896 493.476
(538) 997.334 989.296.857 897.576.854 932.677.496	(549) 8.354.875 457.487.689 29.946.798 7.678.897	(560) 45.678 79.478.895 897.687.924 886.976.543
(539) 45.457.879 674.798.654 2.686.796 345.989.807	(550) 78.475.854 475.995.876 7.889.689 679.375.487	(561) 30.512.103 301.021.412 23.369.316 683.291.213
(540) 576.859 474.897.978 2.886.797 47.689.836	(551) 894.875 70.675.487 207.876.896 46.954.278	(562) 321.376.864 30.465 68.302.192 6.365.321
(541) 687.854 679.796.979 675.768 885.975.433	(552) 7.654.322 40.796.979 6.687.855 207.976.872	(563) 31.836.310 31.608.391 68.391.840 689.432.291

Exercise XXIII.

Add the following :

(564.)	(565.)	(566.)
\$81'05	\$217'75	\$78'50
54'62	83'16	151'63
125'84	55'32	96'18
370'62	135'67	12'03
65'14	75'15	2245'76
91'73	207'45	791'18
182'64	1241'16	33'87
79'30	79'67	6'75
20'37	34'81	650'36
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(567.)	(568.)	(569.)
\$5838'24	\$1846'25	\$37608'75
6183'42	30000'00	6000'00
981'34	4706'50	3337'25
89'65	373'33	840'16
326'10	876'45	73'82
4823'63	1950'55	10950'63
<hr/>	<hr/>	<hr/>

570. Find the sum of \$75'85 ; \$16'05 ; \$123'25 ; \$475'00 ; \$325'50 ; \$110'16.

571. Find the sum of \$328'63 ; \$87'24 ; \$135'55 ; \$1806'10.

572. Add \$26'45 ; \$33'80 ; \$70'67 ; \$8'70 ; and \$63'73.

573. Add \$135'10 ; \$0'17 ; \$1'67 ; \$1800'00 ; \$3'60 ; and \$867'25.

574. A grocer bought sugar for \$19'26 ; coffee for \$8'34 ; tea for \$16'75 ; butter for \$17'16 ; cheese for \$5'75 ; and eggs for \$4'75. What was the amount of his purchases ?

575. A owes \$137'75 to B ; \$297'25 to C ; \$960'00 to D ; and \$500'50 to E ; what is his indebtedness ?

Exercise XXIV.

Add :

(576) $235.789 + 854.756.276 + 876.254 + 6.307 + 76.287.984.$

(577) $896.709 + 4.707.852 + 85.796 + 4.347.089 + 822.054.087$

(578) $650.795 + 805.367 + 425 + 6.294.727 + 87.656 + 975.585.482.$

(579) $377.491.156 + 876.775 + 128.945.569 + 7.797.542 + 478.536.984.$

(580) $654.807 + 7.476.924 + 234.487.839 + 76.454 + 854.759.875$

(581) $95.474 + 293.569.865 + 9.867.564 + 354.207.851 + 709.078.497.$

(582) $56.354 + 875.295 + 94.240.984 + 787.089.859 + 476.572.327.$

(583) $744.276.307 + 5.705 + 734.123 + 342.476.751 + 897.679.747.$

(584) $745.650.807 + 79.089 + 750.607.984 + 7.824.253 + 765.654.807.$

(585) $376.742 + 676.484.976 + 7.854 + 819.542.057 + 524.506.492.$

(586) $577.045.624 + 422.751.974 + 8.852 + 9.545.754 + 517.609.827.$

(587) $554.077 + 2.654.076 + 576.529.824 + 485.737.652 + 529.824.549.$

(588) $2.654.827 + 349.837.450 + 51.759 + 838.845.607 + 490.754.527.$

(589) $654.717.821 + 96.751 + 854.677.910 + 793.452.375 + 989.885.$

(590) $9.008 + 794.887.654 + 923.552.989 + 53.975 + 634.374.524.$

(591) $1.675.781 + 873.714.654 + 934.652.827 + 34.752 + 987.876.974.$

(592) $677.094.854 + 937 + 687.924.877 + 4.607.889 + 946.879.789.$

(593) $53.754 + 768.779.467 + 357.653 + 924.546.274 + 827.937.651.$

(594) $576.089.024 + 7.790 + 987.654.378 + 378.459 + 857.537.784.$

Exercise XXV.

595. Henry is now 16 years of age, how old will he be 36 years hence ?

596. Thomas not having written the 25 lines imposed as a task, had them increased by 19; how many lines has he to write ?

597. A bought a farm for \$3426; B bought one at a cost of \$1248 more than A's farm. How much did B's farm cost? How much did both cost?

598. Gave \$325 for a horse, \$275.50 for a carriage, \$75.75 for a harness, and \$20.62 for a robe. What was the cost of the whole?

599. Bought a pair of boots for \$8.50, an umbrella for \$3.62, a pair of gloves for \$1.25, some collars for \$0.75, and a hat for \$4. What was the whole cost ?

600. I have four bills to pay: the first of \$1405; the second \$875.40; the third \$96.15; and the fourth \$798. What sum do I require to pay them?

601. A certain sum of money was divided among three persons: the first received \$65; the second \$26.30 more than the first; the third \$32.10 more than the second. How much did each receive, and what was the sum divided?

602. The hind-quarters of an ox weigh 390 lbs. each; the fore-quarters 325 lbs. each; the skin 97 lbs.; and the suet 95 lbs. What is the weight of the ox?

603. How many years elapsed from the taking of Troy, which occurred 1184 years before Christ, till the year 1893 of the Christian era?

604. Write in Roman notation: 589, 462, 1893, 4004.

Exercise XXVI.

Add the following :

(605)	(606)	(607)	(608)	(609)	(610)
92686	95699	69274	54644	83798	27781
84355	98683	68778	83826	37696	88834
93972	48437	93864	37799	71655	77678
38276	95357	84583	76748	48874	79638
52196	38865	27987	37898	48962	18349
27219	87677	56296	93467	34249	63848
62633	88843	83877	59848	76244	87728
53849	87867	74747	93838	37298	96287
42927	67685	42929	44244	97268	62387

(611)	(612)	(613)	(614)	(615)	(616)
88386	96284	98677	64385	97724	65939
82528	89397	23738	84944	38376	26935
63962	63928	87679	83743	39228	38567
48382	78988	27877	38297	84691	39624
96659	38789	83986	48623	76988	94637
27762	86757	89765	84816	48694	43828
58386	65844	62985	34467	53489	33898
39297	86292	58387	57516	54977	66738
44846	63929	22465	45676	94197	67496

(617)	(618)	(619)	(620)	(621)	(622)
87384	64469	37574	95997	96786	46248
39297	69353	29629	56289	37936	38688
92976	77497	58096	46634	28674	97874
25575	73378	36976	62875	74762	56426
63837	96437	87687	68787	85494	85729
34749	96675	42126	37453	78584	97976
37244	28376	46636	84795	85878	36682
52795	58978	76876	62133	79336	85729
28769	35846	79338	58472	98777	29567
83772	34727	54973	96939	38979	75875
63965	95797	98976	86677	86493	83458
43272	26639	92767	82586	48286	67937

Exercise XXVII.

623. There are four classes in the school. In the first class there are 48 pupils, in the second and the third 36 each, and in the fourth 32; how many in all?

624. A farmer raised 1850 bushels of wheat, twice as much rye, and 635 bushels of corn more than of wheat and rye; how many bushels of grain did he raise in all?

625. A gains in one year 875 dollars, B gains 234 dollars more than A, and C gains as much as A and B both; how much did B gain? how much did C gain? how much did they all gain?

626. A owns a farm worth 3950 dollars, a wood-lot worth 806 dollars more, and a store worth 695 dollars more than both; what was the value of the wood-lot? of the store? of all three?

627. A man bought two lots for 2850 dollars each; and in selling them he gained 356 dollars on the first, and 297 on the second; how much did he gain on both? How much did he receive for both?

628. How long a cord will it take to go around a garden 386 feet long and 289 feet wide?

629. Find the sum of the three numbers that can be expressed by the figures, 9, 9, and 9.

630. Find the sum of all the numbers between 1893 and 2107, both included.

631. When Willie was born his father was 35 years old, his mother 27, and his grandfather 75; what will be the sum of their ages when Willie has completed his 21st year?

Exercise XXVIII.

632. The first of three numbers is 398, the second is 134 more than the first, and the third 825 more than the second; find the sum of the three numbers.

633. A drover lost \$957, and had \$5690 left; how much would he have, if instead of losing, he had gained \$957.

634. Begin at 324 and find the sum of all numbers to 337 inclusive.

635. A widow at death left her property to her three sons and two nieces. The eldest son received \$3,050, the other two \$2,025 each, and the nieces \$1,050 each; what was the value of the property?

636. Find how many bushels of grain raised on a 50-acre farm in 3 years:

First year—It produced 475 bush. peas, 389 bush. oats, 795 bush. wheat, 659 bush. barley, 174 bush. rye.

Second year—It produced 428 bush. rye, 548 bush. oats, 638 bush. peas, 219 bush. wheat, 269 bush. barley

Third year—It produced 169 bush. wheat, 375 bush. rye, 875 bush. oats, 653 bush. peas, 378 bush. barley.

(First) How many bushels each year?

(Second) How many bushels of each kind of grain in the three years?

637. The produce of a dairy was as follows:

Week.	lbs. Butter.	lbs. Cheese.	Qts. Milk.	Qts. Cream.
1st	478	589	979	867
2nd	963	764	688	578
3rd	895	395	765	489
4th	709	350	900	356

Find the quantity of each for the four weeks.

Exercises in Subtraction.

Exercise XXIX.

(1) 729 417	(20) 995 747	(39) 948 859	(58) 804 377	(77) 705 479	(96) 742 646
(2) 632 521	(21) 451 323	(40) 752 275	(59) 507 295	(78) 694 197	(97) 741 174
(3) 836 314	(22) 762 425	(41) 749 573	(60) 400 245	(79) 747 254	(98) 654 178
(4) 748 534	(23) 853 734	(42) 852 474	(61) 605 294	(80) 755 204	(99) 459 277
(5) 654 433	(24) 974 847	(43) 577 200	(62) 845 379	(81) 857 249	(100) 674 287
(6) 867 625	(25) 855 543	(44) 683 494	(63) 676 297	(82) 978 499	(101) 842 376
(7) 969 733	(26) 972 729	(45) 707 493	(64) 374 296	(83) 879 497	(102) 479 297
(8) 875 750	(27) 681 168	(46) 576 297	(65) 607 409	(84) 678 487	(103) 874 397
(9) 980 550	(28) 774 405	(47) 574 247	(66) 800 501	(85) 964 256	(104) 976 358
(10) 696 424	(29) 565 457	(48) 698 299	(67) 652 294	(86) 745 359	(105) 456 388
(11) 721 513	(30) 726 418	(49) 764 292	(68) 844 586	(87) 678 499	(106) 754 277
(12) 925 519	(31) 523 354	(50) 945 654	(69) 753 684	(88) 854 375	(107) 855 278
(13) 733 314	(32) 745 254	(51) 675 289	(70) 946 278	(89) 456 298	(108) 476 287
(14) 847 629	(33) 847 368	(52) 784 395	(71) 545 484	(90) 976 495	(109) 534 246
(15) 952 734	(34) 335 147	(53) 875 697	(72) 828 299	(91) 957 876	(110) 634 459
(16) 864 135	(35) 475 287	(54) 376 189	(73) 376 187	(92) 978 495	(111) 769 571
(17) 767 548	(36) 617 429	(55) 347 294	(74) 452 289	(93) 874 199	(112) 596 438
(18) 971 422	(37) 725 437	(56) 576 287	(75) 976 589	(94) 742 375	(113) 325 216
(19) 583 235	(38) 834 445	(57) 586 397	(76) 476 297	(95) 876 497	(114) 638 569

Exercise XXX.

(115) 454.565 7.374	(136) 455.310 8.474	(157) 747.207 61.745	(178) 456.874 399.612
(116) 645.742 8.525	(137) 478.726 289.357	(158) 134.207 70.709	(179) 347.854 79.678
(117) 478.754 97.125	(138) 459.435 88.578	(159) 450.007 62.095	(180) 345.654 174.876
(118) 249.764 87.125	(139) 457.505 89.798	(160) 456.785 137.097	(181) 897.954 541.378
(119) 487.654 298.047	(140) 245.751 72.984	(161) 740.090 471.077	(182) 907.454 708.596
(120) 405.425 216.217	(141) 547.422 268.657	(162) 767.405 409.876	(183) 897.452 508.578
(121) 426.790 79.179	(142) 246.745 68.976	(163) 870.050 757.147	(184) 654.087 87.659
(122) 426.542 179.127	(143) 457.595 68.597	(164) 700.707 209.889	(185) 847.054 759.879
(123) 845.472 478.304	(144) 238.475 177.987	(165) 357.074 196.407	(186) 854.087 98.498
(124) 658.765 279.007	(145) 475.647 92.278	(166) 476.277 197.689	(187) 645.983 539.395
(125) 457.421 178.175	(146) 256.456 74.179	(167) 645.444 452.079	(188) 735.942 349.685
(126) 345.745 279.276	(147) 678.407 93.218	(168) 750.007 467.459	(189) 921.356 259.498
(127) 456.678 146.578	(148) 780.705 90.877	(169) 857.217 798.478	(190) 563.492 396.307
(128) 347.123 274.075	(149) 879.425 94.177	(170) 577.405 198.576	(191) 452.763 393.298
(129) 847.547 457.424	(150) 789.852 49.776	(171) 704.555 375.697	(192) 921.465 737.978
(130) 457.424 178.175	(151) 476.007 84.539	(172) 347.257 179.879	(193) 586.461 397.289
(131) 477.853 187.485	(152) 458.075 75.497	(173) 455.606 179.808	(194) 639.783 542.966
(132) 478.727 289.356	(153) 878.045 85.579	(174) 756.374 457.495	(195) 884.926 739.768
(133) 457.427 289.268	(154) 784.725 97.857	(175) 697.899 308.849	(196) 640.863 376.289
(134) 375.147 196.078	(155) 357.117 87.779	(176) 359.854 204.905	(197) 632.653 354.966
(135) 967.435 76.546	(156) 564.022 82.107	(177) 745.879 500.899	(198) 649.326 593.874

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634
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216
538
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Exercise XXXI.

199. Subtract 5 from 6 ; 16 ; 26 ; 36 ; 46 ; 56 ; 66 ; 76 ; 86 ; 96.

200. Subtract 4 from 14 ; 44 ; 24 ; 94 ; 84 ; 64 ; 54 ; 34 ; 74.

201. Subtract 7 from 13 ; 33 ; 23 ; 43 ; 14 ; 24 ; 64 ; 74.

202. Subtract 9 from 18 ; 28 ; 78 ; 97 ; 67 ; 15 ; 75 ; 85 ; 12 ; 62 ; 42.

203. Subtract by threes from 29 to 2.

204. Subtract by sixes from 45 to 3.

205. Subtract by eights from 79 to 15.

206. Subtract by twos from 63 to 1.

207. Count by fives from 6 to 46 and back again.

208. Count by sevens from 9 to 72 and back again.

209. Subtract by nines from 100 to one.

210. Subtract by fours from 83 to 7.

211. There were 16 persons in an omnibus. After 5 got out, and 3 got in, how many persons were then in the "bus"?

212. Richard had 27 marbles. He won 19 and lost 7 ; how many had he then ?

213. William had 1 cent and his Uncle gave him 8 more. How much does he still want to purchase a pair of skates worth 79 cents ?

214. James is 14 years old, Emma four years older, and Jessie 7 years younger than Emma ; how old are Emma and Jessie ?

215. What is the difference between $16 + 11$ and $2 + 8$?

216. What is the difference between $8 + 9 - 4$ and $7 + 5 - 3$?

217. James bought a house for \$2,750, John bought one for \$775 less than James' ; how much did John's house cost ? how much for both ?

Exercise XXXII.

(218) 454.540.736 8.899.987	(239) 458.300.070 28.412.391	(260) 657.462.024 79.834.015
(219) 457.652.478 49.876.579	(240) 759.400.007 71.900.749	(261) 457.804.356 65.907.127
(220) 484.865.432 292.976.974	(241) 457.432.987 79.941.769	(262) 867.491.234 91.374.927
(221) 256.895.454 4.947.872	(242) 348.754.320 279.922.476	(263) 474.827.456 82.456.622
(222) 697.345.954 89.897.795	(243) 879.765.833 19.837.092	(264) 737.576.824 75.954.942
(223) 754.674.894 64.834.795	(244) 824.505.937 9.436.379	(265) 645.479.846 493.791.797
(224) 753.807.954 857.995	(245) 705.454.377 7.792.198	(266) 784.500.743 563.712.597
(225) 764.675.790 275.987.899	(246) 247.400.824 83.291.817	(267) 875.674.745 94.789.824
(226) 507.895.954 407.984.876	(247) 879.457.651 97.780.079	(268) 389.370.045 489.154
(227) 400.746.807 200.837.984	(248) 678.453.001 94.567.007	(269) 745.874.320 97.995.483
(228) 451.900.797 7.191.989	(249) 457.893.453 9.594.327	(270) 657.453.854 69.791.563
(229) 345.807.904 176.943.745	(250) 458.745.976 179.970.069	(271) 874.807.790 65.910.047
(230) 542.600.741 6.723.545	(251) 104.007.852 72.876.194	(272) 917.007.001 45.124.375
(231) 820.470.015 554.376	(252) 567.534.852 72.876.194	(273) 563.944.325 9.763.826
(232) 810.847.065 614.896.874	(253) 478.754.906 9.472.674	(274) 763.452.931 375.973.166
(233) 427.476.987 177.191.989	(254) 678.476.501 89.497.354	(275) 842.156.532 695.783.789
(234) 649.405.067 579.647.189	(255) 437.900.012 78.900.017	(276) 603.766.102 378.389.638
(235) 698.546.294 509.678.977	(256) 405.234.542 53.912.479	(277) 680.002.313 9.369.858
(236) 274.007.304 92.129.405	(257) 746.547.903 61.472.991	(278) 863.092.637 379.888.789
(237) 746.007.504 8.009.715	(258) 587.847.007 94.958.098	(279) 537.621.664 9.876.836
(238) 418.030.450 27.746.761	(259) 547.870.047 4.951.739	(280) 393.653.762 298.574.947

Exercise XXXII!.

(281) 847.653.454 74.375.579	(302) 564.079.758 285.187.976	(323) 977.405.370 95.504.790
(282) 850.070.452 97.050.654	(303) 753.097.507 194.289.778	(324) 456.954.827 377.472.918
(283) 475.364.378 297.273.457	(304) 400.075.546 93.457.897	(325) 752.347.824 73.259.677
(284) 546.807.575 277.451.794	(305) 534.857.678 472.789.756	(326) 974.500.700 93.235.945
(285) 653.405.995 476.294.474	(306) 450.007.546 40.079.452	(327) 976.453.876 455.972.395
(286) 956.753.794 678.404.954	(307) 487.054.554 98.047.775	(328) 839.457.354 745.683.835
(287) 677.454.854 495.647.562	(308) 475.907.754 69.419.548	(329) 586.874.250 97.093.475
(288) 789.543.578 497.379.357	(309) 905.207.240 746.855.472	(330) 846.977.605 7.884.996
(289) 676.527.528 424.709.798	(310) 797.542.240 8.765.576	(331) 875.459.805 97.140.976
(290) 344.565.647 753.676.575	(311) 574.554.247 59.676.452	(332) 847.654.976 39.787.975
(291) 877.456.756 398.298.575	(312) 468.207.427 9.704.554	(333) 984.700.064 76.975.479
(292) 956.875.587 764.697.754	(313) 754.007.454 679.005.765	(334) 654.856.977 7.904.437
(293) 764.927.074 676.489.572	(314) 954.875.754 677.469.579	(335) 966.535.592 5.846.785
(294) 896.467.750 97.964.847	(315) 432.700.769 71.904.257	(336) 942.469.952 7.495.236
(295) 984.375.578 678.227.754	(316) 650.079.059 479.084.704	(337) 987.654.327 3.735.894
(296) 950.076.074 475.207.454	(317) 453.007.426 276.499.449	(338) 456.884.569 707.454
(297) 477.275.750 189.719.754	(318) 837.040.056 4.134.507	(339) 677.958.888 489.787.596
(298) 375.427.587 189.719.754	(319) 975.076.024 584.839.752	(340) 748.995.984 687.543.753
(299) 456.700.750 45.612.495	(320) 400.700.007 203.405.604	(341) 987.785.874 746.347.667
(300) 476.227.487 247.624.756	(321) 854.375.956 437.827	(342) 865.289.289 46.654.307
(301) 876.007.054 798.435.495	(322) 827.235.465 519.147.274	(343) 974.548.935 346.964.642

Exercise XXXIV.

344. From three hundred and four, take two hundred and ninety.

345. From four hundred and sixty-three, take three hundred and seventy-nine.

346. From nine hundred and twenty-seven, take four hundred and twenty-two.

347. Take four hundred and eighty-three, from seven hundred and forty-seven.

348. Find the difference between eight hundred and fifty-six, and four hundred and forty-five.

349. How much is seven hundred and sixty-four more than three hundred and forty-nine?

350. From three thousand seven hundred and eighty-two, take nine hundred and sixty-three.

351. Take twenty thousand and fifty-four from seventy-eight thousand seven hundred and eight.

352. From 129 thousand 690 units take 38 thousand 409 units.

353. From 4 million 17 thousand 307 units take 687 thousand 609 units.

354. Find the difference between 29 million 93 thousand 4 units, and 18 million 97 thousand 45 units.

355. How much is 37 million 89 thousand greater than 28 million 700 thousand 59 units.

356. Subtract 73 million 49 thousand 36 units from 987 million 85 thousand 600 units.

357. What must be taken from 996 thousand 476 units to leave 78 thousand 49 units?

358. How much does 29 million 276 thousand 409 units exceed 5 million 49 thousand 888 units?

359. Find the difference between 987 thousand 486 units, and 99 thousand 79 units.

360. From 123456789, take 98765432.

Exercise XXXV.

(361) 764.907.050 87.929.795	(382) 258.542.070 74.784.987	(403) 874.276.755 94.769.576
(362) 346.176.007 78.487.878	(383) 489.476.376 4.787.453	(404) 784.529.024 95.947.354
(363) 656.450.054 78.677.091	(384) 478.454.851 9.589.975	(405) 477.435.303 58.507.295
(364) 376.570.005 87.745.151	(385) 467.465.754 8.234.975	(406) 976.007.454 48.943.775
(365) 752.475.754 89.787.950	(386) 748.769.456 279.429.759	(407) 798.344.542 14.792.756
(366) 897.450.070 98.776.095	(387) 567.476.084 277.988.795	(408) 477.456.723 98.748.809
(367) 423.750.500 56.879.750	(388) 476.435.525 285.489.875	(409) 789.576.534 99.767.357
(368) 356.842.250 47.974.745	(389) 378.989.011 189.471.875	(410) 549.876.555 8.957.546
(369) 754.754.701 37.679.252	(390) 267.576.723 189.487.695	(411) 742.576.853 179.407.074
(370) 267.475.750 79.797.975	(391) 641.764.054 576.376.476	(412) 764.007.257 97.042.549
(371) 764.704.231 87.957.747	(392) 717.425.556 458.764.757	(413) 877.574.992 98.347.257
(372) 465.742.502 76.908.075	(393) 625.760.454 576.918.976	(414) 754.252.546 272.189.756
(373) 787.654.556 98.298.254	(394) 870.079.043 189.789.958	(415) 258.674.901 22.861.365
(374) 576.427.970 89.550.957	(395) 645.652.502 178.794.741	(416) 308.626.947 35.623.253
(375) 347.495.523 79.789.756	(396) 578.576.520 289.709.769	(417) 498.765.386 24.681.347
(376) 654.652.571 73.475.766	(397) 487.854.523 198.965.428	(418) 976.425.344 37.492.513
(377) 843.276.755 77.787.985	(398) 789.706.542 99.879.765	(419) 425.432.630 56.310.529
(378) 357.402.514 69.776.756	(399) 476.407.355 7.984.075	(420) 253.779.388 24.567.293
(379) 548.757.050 69.899.769	(400) 159.427.742 74.795.456	(421) 252.734.912 24.558.369
(380) 654.565.523 78.749.895	(401) 745.600.055 87.740.275	(422) 460.633.497 313.345.227
(381) 467.517.545 76.539.894	(402) 478.465.542 9.794.759	(423) 367.704.948 345.696.359

Exercise XXXVI.

Find the difference between :—

- | | | | | | | | |
|-------|----------|-----|--------|-------|----------|-----|--------|
| (424) | 84629348 | and | 791207 | (435) | 87210963 | and | 928727 |
| (425) | 66277884 | and | 874992 | (436) | 80206042 | and | 879867 |
| (426) | 73928446 | and | 829106 | (437) | 92060031 | and | 498989 |
| (427) | 58217962 | and | 831097 | (438) | 70510610 | and | 817998 |
| (428) | 82019065 | and | 729196 | (439) | 62694372 | and | 621918 |
| (429) | 99792943 | and | 493268 | (440) | 45789367 | and | 289107 |
| (430) | 65377427 | and | 829176 | (441) | 93914726 | and | 982083 |
| (431) | 99684997 | and | 912938 | (442) | 40097684 | and | 810929 |
| (432) | 84291769 | and | 591261 | (443) | 82776288 | and | 921708 |
| (433) | 42916387 | and | 638179 | (444) | 91284367 | and | 738109 |
| (434) | 98639472 | and | 747916 | (445) | 73829159 | and | 291634 |

Exercise XXXVII.

Find the value of :—

- | | | | | | | | |
|-------|------------|---|---------|-------|------------|---|---------|
| (446) | 5768243738 | − | 6547853 | (457) | 8218274431 | − | 9558294 |
| (447) | 8136052217 | − | 1203071 | (458) | 4129381464 | − | 5210698 |
| (448) | 1324192162 | − | 3131235 | (459) | 1309270463 | − | 8217146 |
| (449) | 4291632091 | − | 7424361 | (460) | 332936483 | − | 9272467 |
| (450) | 5219062802 | − | 1517281 | (461) | 3864389712 | − | 4193624 |
| (451) | 2191063847 | − | 3219168 | (462) | 6327649368 | − | 2436248 |
| (452) | 8129634258 | − | 1591809 | (463) | 4963946322 | − | 4321098 |
| (453) | 5210628379 | − | 4270962 | (464) | 4290681929 | − | 1817099 |
| (454) | 4103827628 | − | 5290638 | (465) | 110620003 | − | 6173847 |
| (455) | 1291329104 | − | 2170386 | (466) | 5912931462 | − | 8000629 |
| (456) | 4216382910 | − | 3821627 | (467) | 4372681054 | − | 6218367 |

Exercise XXXVIII.

Find the value of :—

- | | | | | | | | |
|-------|--------------|---|------|-------|--------------|---|-------------|
| (468) | 82625 + 8492 | − | 7158 | (479) | 63761 | − | 4208 + 8006 |
| (469) | 49387 + 6215 | − | 4392 | (480) | 52515 + 1621 | − | 3824 |
| (470) | 38270 + 5877 | − | 6886 | (481) | 48473 | − | 3814 + 6888 |
| (471) | 70583 + 6218 | − | 9229 | (482) | 93918 + 8177 | − | 6204 |
| (472) | 46284 + 3747 | − | 8998 | (483) | 53588 | − | 6217 |
| (473) | 58396 + 8424 | − | 7487 | (484) | 74462 + 1721 | − | 3107 |
| (474) | 79394 + 9296 | − | 8447 | (485) | 67347 | − | 8392 + 4841 |
| (475) | 87279 + 8557 | − | 6638 | (486) | 93972 | − | 5962 |
| (476) | 46193 + 6219 | − | 9166 | (487) | 89726 | − | 4924 |
| (477) | 97862 + 8976 | − | 3928 | (488) | 37194 | − | 8219 + 6389 |
| (478) | 32182 + 8379 | − | 6284 | (489) | 81327 | − | 5936 + 2714 |

Exercise XXXIX.

490. From 7280396895 take 262809749.
491. Take 3817542716 from 6278154867.
492. Find the sum of 876394, 96297, 386 and 7968.
493. Find the difference between 837296 and 9427698.
494. Subtract 7263849 from $382769 + 82194769$.
495. How much greater is 7958674 than 976284 ?
496. Add 76289 to $65839764 - 2796107$.
497. What must be added to 3104 to make 4000 ?
498. Subtract $78267 + 38974$ from $190000 - 1400$.
499. What must be taken from 73928 to leave 7098 ?
500. Find the value of $778 + 96 + 84 - 87 - 96 + 109 + 39$.
501. From $789 + 638 + 905$ take $807 + 629 + 564$.
502. How much is $89276 + 69784$ greater than 78629 ?
503. Add 7869 to the difference between 6494 and 86.
504. From the sum of 789, 386, 478 and 97 take 999.
505. Find the value of $772 + 86 + 97 - 84 - 36 + 87 - 82$.

Exercise XL.

506. Take 28372945 from 927286795.
507. From 921706934 take 48397298.
508. Subtract 841093767 from 9821900603.
509. How much less is 99999 than 100000 ?
510. By how much does 2683715 exceed 417092 ?
511. From the sum of 79638 and 7954 take 9309.
512. From the difference between 1000 and 79 take 87.
513. Find the value of $739 + 879 + 648 - 79 - 39 - 9$.
514. Subtract 79293 from the sum of 97276 and 87.
515. How much must I take from 9297 to leave 709 ?
516. Add the difference between 796 and 9286 to 723.
517. Add the sum of 948 and 467 to their difference.
518. Find the value of $97 + 69 + 38 + 46 + 56 + 85 - 27$.
519. What must be added to 79384 to make 893647 ?
520. What must be taken from 389268 to leave 80914 ?

Exercise XL1.

521. Purchased a house for \$16787.99 and sold it for \$18000.00; what was my gain?

522. A and B began business with a capital of \$16000.00. If A put in \$9713.73; what was B's share of the capital?

523. A gentleman having \$3800.25 in bank, drew out \$468.71; how much has he remaining in Bank?

524. A merchant in one day sold goods to the amount of \$3615.70, and thereby gained \$963.80. What was his buying price?

525. How much must be added to \$675.38 to make it \$1000?

526. A man with \$10000 cash invests in the dry goods business, paying \$5673.75 for the store and \$2987 for the goods; how much cash has he left?

527. If a man receives \$150.00 per month, and pays \$32 for provisions, \$16.75 for clothing, \$30 for rent, and \$19.67 for sundry articles; how much will he be able to save each month?

528. A farmer sold hay for \$1615, vegetables for \$16.75, and a calf for \$18.50. He received in payment butter worth \$6.10, flour worth \$7.95, and the remainder in cash. How much cash did he receive?

529. An auctioneer received furniture to the value of \$7864, which he auctioned off in two lots, one for \$4620.75, and the other for \$3000; what was the loss on the furniture?

530. I bought a pair of horses for \$620, a harness for \$60.50, and a carriage for \$300 less than I paid for both horses and harness; what was the cost of the carriage?

Exercise XLII.

Find the value of:

$$(531) 6834 + 2795 - 3628 + 6279 - 5916 + 3819 + 596 + 32735 + 302 - 65 + 765.$$

$$(532) 97396 + 2075 - 76394 - 6217 + 3862 - 1912 + 586 - 7381 + 62197 - 1091.$$

$$(533) 84716 + 2793 - 5972 + 68175 + 3824 + 72176 - 213716 + 31027 - 12345.$$

$$(534) 79218 + 6397 - 5816 - 27 + 3872 - 470 - 389 - 62 + 81765 - 32 - 76 + 21.$$

$$(335) 86279 + 38174 - 5010 - 6271 + 3897 + 4701 - 362 - 2107 + 49147 - 3102 + 56.$$

$$(336) 78382 + 37291 - 1070 - 6213 + 5878 + 392 - 796 - 41783 + 62 + 306 - 27 + 101.$$

$$(537) 81079 + 3762 - 42 + 68 - 38 - 108 + 627 + 8297 - 606274 - 302 + 92 - 190 - 6.$$

$$(538) 73009 + 2684 - 8069 - 3210 + 7691 + 8997 + 623 + 8729 - 627 + 381 - 56.$$

$$(539) 92603 + 6817 - 376 - 489 + 3496 + 4209 + 63796 - 381 - 726 + 304.$$

$$(540) 428904 + 9237 - 342 + 852 - 65 + 4982 - 905 + 5802 - 309.$$

$$(541) 8309679 + 87067 - 301054 + 763859 + 728 - 31046 - 4967 + 6937.$$

$$(542) 7282694 + 39076 - 72967 - 31279 + 56954 + 37294 - 763 - 39294 - 67 - 98.$$

$$(543) 97437 + 16208 - 36215 + 62719 + 4216 - 3278 - 4762 + 37 + 670 + 308 - 1010.$$

$$(544) 827867 + 38769 - 1628 - 3216 + 5637 + 8217 + 3102 + 14 + 563 + 76 - 900 - 46.$$

$$(545) 68393 + 20069 - 31027 - 41029 + 678 + 396 - 504 - 368 + 3691.$$

$$(546) 81427 + 39208 + 6217 - 4192 + 6978 - 4217 - 327 + 68981 - 27 - 93.$$

$$(547) 581 + 69879 + 706 - 3217 + 3897 - 276 + 589 - 3214 - 39 + 3609 - 58 - 96.$$

$$(548) 9217 + 92794 - 39486 - 5862 + 389 + 678 + 792 - 384 - 82 + 769 + 345.$$

$$(549) 94238 + 46892 - 432 + 789 + 904 - 602 + 90807 - 705.$$

Exercise XLIII.

550. A shipper had 1689 bush. of wheat and 965 bush. of oats. He sold 890 bush. of wheat and 478 bush. of oats; how many bush. of each remained unsold?

551. If I had \$245.50 more, I could pay a debt of \$645.50 and have \$85 left; how much money have I at present?

552. P has 300 sheep, M has 145 more than P, and L has as many as the other two less 117; how many has L?

553. George bought 434 cords of wood for \$2170, and gave in payment 1500 lbs. of salmon worth \$144, 700 bush of potatoes worth \$210; how much is yet due on the wood?

554. In three boxes there are 1435 oranges which cost \$25. The first box contains 240 oranges, the second 80 more than the first; how many oranges in the third box?

555. A grocer bought four boxes of cheese for \$45. There were 85 lbs. in the first, in the second 76 lbs., in the third 63 lbs., in the fourth as many pounds as would make a total of 300 lbs.; how many lbs. in the fourth box?

556. The printing press was invented in A.D. 1441, and gunpowder was discovered 111 years before; in what year was the composition of gunpowder discovered?

557. The Emancipation Bill became law in A.D. 1829; how many years since to the present A.D. 1893?

558. The distance around the earth is 24899 miles, around the moon 6786 miles; what is the difference between the circumference of the moon and that of the earth?

Exercise XLIV.

559. Mount Everest is 29000 feet high. Mount St. Elias is 17900 feet in high; which is the higher, and by how many feet?

560. A merchant, worth \$35000, leaves \$8000 to an orphanage, \$12050 to a hospital, and the remainder to the church; how much does the church receive?

561. Find the difference between \$9050 and 868432 cents.

562. The remainder is 3051, the subtrahend 2568; what is the minuend?

563. The minuend is 10180920, the remainder is 984329; what is the subtrahend.

564. How many cents must be added to 308 cents to make \$308?

565. Cardinal Newman died in 1890, 89 years of age; in what year was he born?

566. Alfred the Great died in 901, aged 52 years, and he reigned 24 years; in what year did he become king?

567. From one million take nine.

568. James Murphy owned 9725 acres of land; he gave to his oldest brother 2196 acres, and to his youngest brother 1982 acres. How much had he left?

569. The real estate of Edward J. Kelly is valued at \$3769, and his personal estate at \$2648; he owes Patrick Reynolds \$1728, and Simon Taylor \$1162. How much is E. J. K. worth?

570. Henry McRory has \$20765 in bank, John Gallagher has \$5075 less in bank than H. McR.; how much has John in bank? how much have both?

(1)

(2)

(3)

(4)

(5)

(6)

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(8)

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(10)

(11)

(12)

(13)

(14)

(15)

(16)

(17)

(18)

(19)

Exercises in Multiplication

Exercise XLV.

(1) $\begin{array}{r} 112 \\ 1 \end{array}$	(20) $\begin{array}{r} 476 \\ 4 \end{array}$	(39) $\begin{array}{r} 407 \\ 7 \end{array}$	(58) $\begin{array}{r} 824 \\ 2 \end{array}$	(77) $\begin{array}{r} 749 \\ 4 \end{array}$	(96) $\begin{array}{r} 767 \\ 6 \end{array}$
(2) $\begin{array}{r} 113 \\ 2 \end{array}$	(21) $\begin{array}{r} 763 \\ 5 \end{array}$	(40) $\begin{array}{r} 839 \\ 8 \end{array}$	(59) $\begin{array}{r} 347 \\ 3 \end{array}$	(78) $\begin{array}{r} 876 \\ 5 \end{array}$	(97) $\begin{array}{r} 975 \\ 7 \end{array}$
(3) $\begin{array}{r} 123 \\ 3 \end{array}$	(22) $\begin{array}{r} 379 \\ 6 \end{array}$	(41) $\begin{array}{r} 987 \\ 9 \end{array}$	(60) $\begin{array}{r} 947 \\ 3 \end{array}$	(79) $\begin{array}{r} 768 \\ 6 \end{array}$	(98) $\begin{array}{r} 437 \\ 0 \end{array}$
(4) $\begin{array}{r} 124 \\ 4 \end{array}$	(23) $\begin{array}{r} 245 \\ 7 \end{array}$	(42) $\begin{array}{r} 676 \\ 2 \end{array}$	(61) $\begin{array}{r} 654 \\ 4 \end{array}$	(80) $\begin{array}{r} 789 \\ 7 \end{array}$	(99) $\begin{array}{r} 842 \\ 9 \end{array}$
(5) $\begin{array}{r} 215 \\ 5 \end{array}$	(24) $\begin{array}{r} 566 \\ 8 \end{array}$	(43) $\begin{array}{r} 436 \\ 3 \end{array}$	(62) $\begin{array}{r} 842 \\ 5 \end{array}$	(81) $\begin{array}{r} 769 \\ 8 \end{array}$	(100) $\begin{array}{r} 954 \\ 2 \end{array}$
(6) $\begin{array}{r} 902 \\ 6 \end{array}$	(25) $\begin{array}{r} 827 \\ 9 \end{array}$	(44) $\begin{array}{r} 927 \\ 4 \end{array}$	(63) $\begin{array}{r} 762 \\ 6 \end{array}$	(82) $\begin{array}{r} 879 \\ 9 \end{array}$	(101) $\begin{array}{r} 375 \\ 3 \end{array}$
(7) $\begin{array}{r} 714 \\ 7 \end{array}$	(26) $\begin{array}{r} 940 \\ 2 \end{array}$	(45) $\begin{array}{r} 875 \\ 5 \end{array}$	(64) $\begin{array}{r} 452 \\ 7 \end{array}$	(83) $\begin{array}{r} 456 \\ 2 \end{array}$	(102) $\begin{array}{r} 845 \\ 4 \end{array}$
(8) $\begin{array}{r} 707 \\ 8 \end{array}$	(27) $\begin{array}{r} 623 \\ 3 \end{array}$	(46) $\begin{array}{r} 464 \\ 6 \end{array}$	(65) $\begin{array}{r} 764 \\ 8 \end{array}$	(84) $\begin{array}{r} 789 \\ 3 \end{array}$	(103) $\begin{array}{r} 674 \\ 5 \end{array}$
(9) $\begin{array}{r} 416 \\ 9 \end{array}$	(28) $\begin{array}{r} 454 \\ 4 \end{array}$	(47) $\begin{array}{r} 276 \\ 7 \end{array}$	(66) $\begin{array}{r} 874 \\ 9 \end{array}$	(85) $\begin{array}{r} 876 \\ 4 \end{array}$	(104) $\begin{array}{r} 347 \\ 6 \end{array}$
(10) $\begin{array}{r} 545 \\ 2 \end{array}$	(29) $\begin{array}{r} 567 \\ 5 \end{array}$	(48) $\begin{array}{r} 769 \\ 8 \end{array}$	(67) $\begin{array}{r} 765 \\ 2 \end{array}$	(86) $\begin{array}{r} 456 \\ 5 \end{array}$	(105) $\begin{array}{r} 576 \\ 7 \end{array}$
(11) $\begin{array}{r} 346 \\ 3 \end{array}$	(30) $\begin{array}{r} 874 \\ 6 \end{array}$	(49) $\begin{array}{r} 477 \\ 9 \end{array}$	(68) $\begin{array}{r} 687 \\ 3 \end{array}$	(87) $\begin{array}{r} 768 \\ 6 \end{array}$	(106) $\begin{array}{r} 876 \\ 8 \end{array}$
(12) $\begin{array}{r} 276 \\ 4 \end{array}$	(31) $\begin{array}{r} 367 \\ 7 \end{array}$	(50) $\begin{array}{r} 695 \\ 2 \end{array}$	(69) $\begin{array}{r} 454 \\ 4 \end{array}$	(88) $\begin{array}{r} 476 \\ 7 \end{array}$	(107) $\begin{array}{r} 765 \\ 9 \end{array}$
(13) $\begin{array}{r} 307 \\ 5 \end{array}$	(32) $\begin{array}{r} 453 \\ 8 \end{array}$	(51) $\begin{array}{r} 989 \\ 3 \end{array}$	(70) $\begin{array}{r} 784 \\ 5 \end{array}$	(89) $\begin{array}{r} 347 \\ 8 \end{array}$	(108) $\begin{array}{r} 971 \\ 9 \end{array}$
(14) $\begin{array}{r} 406 \\ 6 \end{array}$	(33) $\begin{array}{r} 842 \\ 9 \end{array}$	(52) $\begin{array}{r} 549 \\ 4 \end{array}$	(71) $\begin{array}{r} 367 \\ 6 \end{array}$	(90) $\begin{array}{r} 889 \\ 9 \end{array}$	(109) $\begin{array}{r} 535 \\ 2 \end{array}$
(15) $\begin{array}{r} 547 \\ 7 \end{array}$	(34) $\begin{array}{r} 769 \\ 2 \end{array}$	(53) $\begin{array}{r} 854 \\ 5 \end{array}$	(72) $\begin{array}{r} 489 \\ 7 \end{array}$	(91) $\begin{array}{r} 789 \\ 9 \end{array}$	(110) $\begin{array}{r} 639 \\ 3 \end{array}$
(16) $\begin{array}{r} 876 \\ 7 \end{array}$	(35) $\begin{array}{r} 847 \\ 3 \end{array}$	(54) $\begin{array}{r} 287 \\ 6 \end{array}$	(73) $\begin{array}{r} 786 \\ 8 \end{array}$	(92) $\begin{array}{r} 470 \\ 2 \end{array}$	(111) $\begin{array}{r} 726 \\ 4 \end{array}$
(17) $\begin{array}{r} 426 \\ 0 \end{array}$	(36) $\begin{array}{r} 564 \\ 4 \end{array}$	(55) $\begin{array}{r} 482 \\ 7 \end{array}$	(74) $\begin{array}{r} 897 \\ 9 \end{array}$	(93) $\begin{array}{r} 674 \\ 3 \end{array}$	(112) $\begin{array}{r} 682 \\ 5 \end{array}$
(18) $\begin{array}{r} 289 \\ 2 \end{array}$	(37) $\begin{array}{r} 564 \\ 5 \end{array}$	(56) $\begin{array}{r} 673 \\ 8 \end{array}$	(75) $\begin{array}{r} 756 \\ 2 \end{array}$	(94) $\begin{array}{r} 873 \\ 4 \end{array}$	(113) $\begin{array}{r} 476 \\ 7 \end{array}$
(19) $\begin{array}{r} 564 \\ 5 \end{array}$	(38) $\begin{array}{r} 379 \\ 6 \end{array}$	(57) $\begin{array}{r} 452 \\ 9 \end{array}$	(76) $\begin{array}{r} 676 \\ 3 \end{array}$	(95) $\begin{array}{r} 453 \\ 5 \end{array}$	(114) $\begin{array}{r} 689 \\ 9 \end{array}$

Exercise XLVI.

(115) 489.507 2	(136) 857.453 7	(157) 864.207 3	(178) 975.654 6
(116) 654.764 3	(137) 673.459 8	(158) 475.654 4	(179) 907.075 7
(117) 200.705 4	(138) 747.827 9	(159) 365.408 5	(180) 578.045 8
(118) 924.654 5	(139) 942.276 9	(160) 824.025 6	(181) 974.834 9
(119) 753.407 6	(140) 954.376 2	(161) 547.686 7	(182) 375.406 4
(120) 923.247 7	(141) 742.087 3	(162) 879.789 8	(183) 927.454 5
(121) 951.847 8	(142) 427.967 4	(163) 487.676 9	(184) 905.453 6
(122) 657.432 9	(143) 456.876 5	(164) 765.478 2	(185) 845.405 8
(123) 837.476 6	(144) 345.654 6	(165) 742.389 3	(186) 845.607 9
(124) 670.075 7	(145) 857.976 7	(166) 875.784 4	(187) 548.831 7
(125) 456.024 4	(146) 484.237 8	(167) 647.548 5	(188) 347.139 3
(126) 653.707 7	(147) 870.089 9	(168) 484.374 6	(189) 607.352 6
(127) 839.456 6	(148) 574.345 2	(169) 687.899 7	(190) 456.828 3
(128) 576.824 5	(149) 347.824 6	(170) 876.789 8	(191) 983.652 3
(129) 744.527 8	(150) 654.237 3	(171) 689.879 9	(192) 364.852 6
(130) 677.456 9	(151) 576.484 4	(172) 847.987 7	(193) 456.321 5
(131) 975.045 2	(152) 390.542 5	(173) 674.789 8	(194) 342.686 9
(132) 747.854 3	(153) 784.560 7	(174) 987.685 9	(195) 462.852 6
(133) 653.407 4	(154) 485.296 8	(175) 456.907 3	(196) 462.965 8
(134) 753.423 5	(155) 945.678 9	(176) 875.450 4	(197) 385.253 7
(135) 854.753 6	(156) 369.452 2	(177) 357.405 5	(198) 563.506 9

Exercise XLVII.

(199) 718.476.254 2	(220) 443.570.074 8	(241) 864.076.084 4
(200) 764.867.978 3	(221) 789.870.795 9	(242) 974.827.454 8
(201) 697.374.024 4	(222) 896.893.954 8	(243) 607.907.807 3
(202) 857.654.925 7	(223) 976.356.453 9	(244) 748.754.097 2
(203) 769.654.769 6	(224) 987.654.079 7	(245) 875.473.974 8
(204) 475.427.654 7	(225) 837.054.007 8	(246) 574.854.967 4
(205) 694.744.827 8	(226) 494.007.654 9	(247) 484.326.446 5
(206) 985.564.542 9	(227) 574.854.376 7	(248) 900.741.854 6
(207) 847.959.542 8	(228) 747.678.453 8	(249) 652.872.954 7
(208) 737.570.742 6	(229) 476.864.607 9	(250) 307.452.854 8
(209) 894.344.807 7	(230) 546.876.005 8	(251) 907.405.324 9
(210) 792.670.074 5	(231) 607.405.007 7	(252) 274.279.405 9
(211) 982.567.907 3	(232) 676.423.754 8	(253) 349.567.912 6
(212) 880.087.370 4	(233) 407.676.005 8	(254) 953.903.618 7
(213) 947.607.527 2	(234) 598.471.007 6	(255) 424.546.983 9
(214) 845.794.653 7	(235) 694.007.678 5	(256) 959.387.943 4
(215) 477.406.823 3	(236) 784.653.484 4	(257) 494.388.169 8
(216) 397.756.928 6	(237) 839.754.607 3	(258) 698.437.908 7
(217) 575.696.707 4	(238) 476.754.827 5	(259) 469.200.868 4
(218) 954.008.579 5	(239) 654.820.074 6	(260) 537.253.498 9
(219) 395.576.927 7	(240) 706.007.475 7	(261) 428.594.358 8

Exercise XLVIII.

262. James earns \$6 a week and Henry \$3; how much will both earn in 3 weeks? 9 weeks?
263. Two persons travel in the same direction, one 38 miles a day and the other 24; how far apart are they at the end of 6 days? 2 days? 9 days?
264. A tailor bought 15 yards of cloth at \$5 a yard; but it being damaged, he was obliged to sell it at a loss of \$13. How much did he receive for it?
265. Two men start from the same point and travel in opposite directions, one 34 miles a day, and the other 26; how far apart are they in 5 days?
266. A carpenter earned \$18 a week, and a shoemaker \$11; how much more than the shoemaker will the carpenter have earned in 16 weeks?
267. Bought 150 barrels of flour for \$1150, and finding 25 barrels of it worthless, sold the remainder at \$9 a barrel. Did I gain or lose, and how much?
268. A grocer bought 25 barrels of sugar at \$25 a barrel, and 34 barrels at \$22 a barrel. How much would he gain by selling the whole at \$27 a barrel?
269. What will be the cost of 691000 pressed brick at \$15 a thousand?
270. A field contains 5076 rows of corn, each row containing 4005 hills, and each hill 4 stalks; how many stalks of corn in the field?
271. A speculator bought 100 acres of land for \$9000, and sold 57 acres at \$95 an acre, and the rest at \$115 an acre; what did he gain by the transaction?
272. A drover bought 20 horses for \$130.75 each, and sold them for \$180 each; what did he gain?
273. A man bought 25 barrels of flour at \$5.50 a barrel, and 40 barrels of apples at \$3 a barrel; what was the cost of all?

Exercise XLIX.

(274) 215 10	(295) 386 31	(316) 750 52	(337) 987 73	(358) 464 94	(379) 875 85
(275) 719 11	(296) 487 32	(317) 747 53	(338) 674 74	(359) 687 95	(380) 434 95
(276) 324 12	(297) 592 33	(318) 872 54	(339) 845 75	(360) 978 96	(381) 307 99
(277) 426 13	(298) 697 34	(319) 870 55	(340) 976 76	(361) 754 97	(382) 824 46
(278) 529 14	(299) 775 35	(320) 807 56	(341) 743 77	(362) 874 98	(383) 469 76
(279) 633 15	(300) 184 36	(321) 940 57	(342) 876 78	(363) 954 99	(384) 681 63
(280) 735 16	(301) 355 37	(322) 957 58	(343) 769 79	(364) 807 15	(385) 578 84
(281) 540 17	(302) 977 38	(323) 907 59	(344) 357 80	(365) 456 19	(386) 987 46
(282) 245 18	(303) 344 39	(324) 475 60	(345) 487 81	(366) 975 24	(387) 248 86
(283) 754 19	(304) 359 40	(325) 654 61	(346) 689 82	(367) 454 27	(388) 291 68
(284) 456 20	(305) 371 41	(326) 876 62	(347) 574 83	(368) 378 36	(389) 675 82
(285) 359 21	(306) 405 42	(327) 956 63	(348) 657 84	(369) 456 38	(390) 856 47
(286) 564 22	(307) 470 43	(328) 437 64	(349) 987 85	(370) 815 45	(391) 456 93
(287) 167 23	(308) 487 44	(329) 865 65	(350) 673 86	(371) 469 43	(392) 643 76
(288) 568 24	(309) 505 45	(330) 766 66	(351) 457 87	(372) 874 54	(393) 524 52
(289) 669 25	(310) 590 46	(331) 964 67	(352) 984 88	(373) 901 57	(394) 678 83
(290) 871 26	(311) 539 47	(332) 354 68	(353) 827 89	(374) 342 65	(395) 492 67
(291) 976 27	(312) 625 48	(333) 984 69	(354) 979 90	(375) 456 69	(396) 925 46
(292) 477 28	(313) 609 49	(334) 854 70	(355) 657 91	(376) 807 78	(397) 868 49
(293) 878 29	(314) 676 50	(335) 568 71	(356) 895 92	(377) 975 79	(398) 935 63
(294) 984 30	(315) 703 51	(336) 476 72	(357) 937 93	(378) 435 83	(399) 627 98

Exercise L.

(400) 276.475 10	(421) 794.807 31	(442) 976.540 52	(493) 674.875 73
(401) 954.828 11	(422) 853.477 32	(443) 654.320 53	(464) 974.854 74
(402) 384.957 12	(423) 957.834 33	(444) 753.826 54	(465) 695.437 75
(403) 607.405 13	(424) 594.827 34	(445) 600.700 55	(466) 674.864 76
(404) 807.405 14	(425) 943.754 35	(446) 407.954 56	(467) 757.759 77
(405) 943.822 15	(426) 609.834 36	(447) 834.705 57	(468) 874.079 78
(406) 707.045 16	(427) 794.604 37	(448) 976.753 58	(469) 134.670 79
(407) 674.653 17	(428) 827.454 38	(449) 489.807 59	(470) 769.859 80
(408) 753.824 18	(429) 796.450 39	(450) 796.453 60	(471) 674.874 81
(409) 767.684 19	(430) 687.070 40	(451) 794.835 61	(472) 758.954 82
(410) 657.489 20	(431) 834.750 41	(452) 456.954 62	(473) 853.657 83
(411) 824.756 21	(432) 976.450 42	(453) 646.854 63	(474) 865.647 84
(412) 476.937 22	(433) 607.741 43	(454) 456.977 64	(475) 686.894 85
(413) 854.961 23	(434) 987.954 44	(455) 366.456 65	(476) 896.638 86
(414) 674.897 24	(435) 746.824 45	(456) 896.907 66	(477) 985.752 87
(415) 987.007 25	(436) 759.407 46	(457) 414.275 67	(478) 697.385 88
(416) 879.678 26	(437) 677.007 47	(458) 753.537 68	(479) 754.693 89
(417) 769.407 27	(438) 796.450 48	(459) 427.967 69	(480) 896.469 90
(418) 835.678 28	(439) 984.765 49	(460) 654.079 70	(481) 562.697 91
(419) 786.795 29	(440) 470.079 50	(461) 897.654 71	(482) 859.473 92
(420) 843.576 30	(441) 834.027 51	(462) 678.967 72	(483) 946.257 93

Exercise LI.

4.875 73	(484) 987.432.594 46	(505) 659.878.543 67	(526) 475.899.907 88
4.854 74	(485) 879.543.254 47	(506) 796.800.457 68	(527) 759.607.456 89
5.437 75	(486) 607.045.079 48	(507) 678.800.457 69	(528) 827.896.765 90
4.864 76	(487) 854.976.478 49	(508) 477.653.457 70	(529) 476.967.839 91
7.759 77	(488) 674.807.009 50	(509) 324.983.457 71	(530) 395.797.698 92
4.079 78	(489) 874.370.094 51	(510) 547.837.450 72	(531) 795.437.890 93
4.670 79	(490) 874.217.009 52	(511) 876.956.276 73	(532) 807.767.489 94
4.859 80	(491) 674.807.000 53	(512) 798.347.870 74	(533) 478.979.054 95
4.874 81	(492) 430.079.654 54	(513) 838.789.698 75	(534) 389.878.598 96
4.954 82	(493) 674.807.605 55	(514) 479.789.675 76	(535) 837.874.894 97
4.657 83	(494) 479.798.079 56	(515) 767.787.879 77	(536) 587.954.980 98
4.647 84	(495) 874.252.697 57	(516) 678.545.489 78	(537) 678.541.543 99
4.894 85	(496) 297.654.874 58	(517) 467.854.346 79	(538) 359.842.357 94
4.638 86	(497) 798.087.095 59	(518) 346.878.576 80	(539) 965.367.324 75
4.752 87	(498) 487.974.828 60	(519) 957.689.845 81	(540) 362.954.398 93
4.385 88	(499) 654.037.459 61	(520) 807.976.453 82	(541) 436.609.532 57
4.693 89	(500) 679.854.372 62	(521) 927.827.463 83	(542) 987.335.439 90
4.469 90	(501) 499.854.372 63	(522) 453.976.567 84	(543) 588.945.678 86
4.697 91	(502) 454.284.897 64	(523) 745.976.453 85	(544) 957.462.408 77
4.473 92	(503) 974.896.076 65	(524) 629.834.577 86	(545) 486.527.678 65
4.257 93	(504) 796.842.177 66	(525) 837.674.589 87	(546) 784.425.288 65

Exercise LII.

547. A young man receives \$1000 salary, and pays \$180 for board, \$215 for clothing, \$120 for books, and \$165 for other purposes; how much can he save in 4 years?
548. At \$4.80 a bushel, what will 625 bushels of flaxseed cost?
549. What cost 83 bushels of corn, at 75 cents a bushel?
550. What cost 145 yards of sheeting at 8 cents a yard?
551. At \$4.63 a head, what will 378 sheep cost?
552. What cost 8 pieces of calico, each piece containing 35 yards, at 7 cents a yard?
553. How much will a grocer pay for two chests of tea, each containing 65 pounds, at 65 cents a pound?
554. What will 19 hogsheads of vinegar cost, each containing 63 gallons, at 23 cents a gallon?
555. Bought 9 cows at \$30 each, 13 horses at \$135 each, and 300 sheep at \$3.50 each; what was the entire cost?
556. A merchant purchased 27 pieces of cloth, each containing 54 yards, at \$3.33 a yard, and sold it for \$3.45 a yard; how much did he gain?
557. A flour merchant bought 450 barrels of flour for \$2262.50, and sold them for \$6.63 a barrel; what did he gain?
558. A man earns \$3.25 a day, and his daily expenses are \$1.89; how much will he save in 365 days?
559. I sold 13 bales of cotton cloth, each bale containing 10 pieces, and each piece 19 yards, at \$0.05 per yard; what did I receive for the whole?

Exercise LIII.

(560) 475.709.453 752	(581) 967.845.796 954	(602) 769.677.564 345
(561) 768.945.653 854	(582) 895.746.840 107	(603) 689.834.945 678
(562) 807.497.875 905	(583) 978.574.946 291	(604) 987.654.854 895
(563) 956.676.476 756	(584) 679.789.840 372	(605) 678.896.453 745
(564) 466.007.452 817	(585) 978.876.456 452	(606) 768.953.827 607
(565) 875.307.429 978	(586) 769.457.989 509	(607) 487.954.957 705
(566) 945.427.953 479	(587) 897.876.954 606	(608) 676.879.745 807
(567) 659.853.937 745	(588) 978.674.856 721	(609) 487.976.456 945
(568) 746.784.957 976	(589) 796.784.694 825	(610) 875.407.907 657
(569) 678.987.978 827	(590) 789.657.496 976	(611) 754.307.957 785
(570) 879.769.652 498	(591) 896.847.686 164	(612) 895.456.376 769
(571) 746.779.478 979	(592) 767.086.476 384	(613) 304.857.950 897
(572) 975.784.899 802	(593) 896.794.589 376	(614) 674.257.815 978
(573) 854.755.907 743	(594) 976.654.807 425	(615) 285.407.617 897
(574) 827.654.680 345	(595) 897.807.006 576	(616) 598.075.745 476
(575) 984.794.847 456	(596) 984.495.384 650	(617) 787.945.235 798
(576) 657.984.854 518	(597) 674.758.437 759	(618) 498.957.579 456
(577) 696.007.453 673	(598) 987.834.789 805	(619) 795.678.745 786
(578) 598.976.487 607	(599) 890.456.823 987	(620) 340.705.805 387
(579) 976.789.857 761	(600) 878.947.537 100	(621) 564.527.907 679
(580) 698.792.387 841	(601) 997.457.894 207	(622) 872.072.004 849

Exercise LIV.

(623) 457.670.087 4.564	(644) 807.489.856 9.076	(665) 879.947.953 3.785
(624) 974.670.087 8.978	(645) 456.769.859 1.754	(666) 653.875.450 4.690
(625) 874.345.054 6.978	(646) 980.479.879 2.005	(667) 789.756.472 5.796
(626) 847.067.009 4.768	(647) 815.456.789 3.575	(668) 589.047.207 2.450
(627) 475.087.654 7.498	(648) 478.589.875 4.357	(669) 879.747.653 3.785
(628) 567.004.980 7.487	(649) 789.987.654 5.467	(670) 653.875.450 4.690
(629) 676.009.675 6.589	(650) 978.978.576 6.427	(671) 789.756.472 5.796
(630) 315.074.854 4.781	(651) 375.456.347 7.524	(672) 877.986.755 6.790
(631) 347.654.857 9.874	(652) 454.879.456 8.419	(673) 543.989.765 7.894
(632) 976.405.674 9.876	(653) 877.898.701 9.476	(674) 879.847.654 7.646
(633) 547.689.476 7.407	(654) 579.900.746 1.347	(675) 478.989.765 8.765
(634) 764.897.695 8.007	(655) 608.908.407 2.357	(676) 937.497.895 9.769
(635) 847.987.574 9.075	(656) 907.987.456 3.456	(677) 592.489.675 5.978
(636) 973.895.676 1.087	(657) 654.476.889 4.789	(678) 359.709.856 7.896
(637) 475.795.834 2.076	(658) 365.674.987 5.321	(679) 732.626.948 9.755
(638) 785.747.827 3.476	(659) 587.789.804 6.005	(680) 509.534.783 7.986
(639) 807.954.369 4.937	(660) 876.694.654 9.025	(681) 785.983.587 7.495
(640) 584.476.854 5.728	(661) 497.364.956 8.470	(682) 987.896.543 8.456
(941) 365.654.574 6.425	(662) 484.984.805 9.754	(683) 597.987.543 4.768
(642) 478.956.826 7.432	(663) 576.976.474 1.796	(684) 478.509.896 5.789
(643) 953.769.476 8.421	(664) 487.847.207 2.450	(685) 583.210.769 9.875

Exercise LV.

(686)	890.000 7.000	(707)	970.000 4.006	(728)	500.040.000 300.700
(687)	450.090 6.900	(708)	684.000 1.200	(729)	670.709.000 500.400
(688)	650.000 9.700	(709)	987.400 7.000	(730)	600.301.000 400.500
(689)	750.000 9.700	(710)	964.000 2.500	(731)	820.030.000 5.400.700
(690)	810.000 47.000	(711)	914.400 7.200	(732)	300.740.000 897.000
(691)	425.000 6.500	(712)	851.000 6.900	(733)	975.007.000 457.600
(692)	780.000 4.000	(713)	781.000 1.900	(734)	872.004.000 700.500
(693)	890.000 7.500	(714)	697.800 1.600	(735)	605.004.000 500.700
(694)	920.000 7.800	(715)	977.700 4.900	(736)	680.060.000 589.000
(695)	405.000 4.760	(716)	246.000 4.200	(737)	740.050.000 897.400
(696)	480.000 5.000	(717)	760.000 74.200	(738)	300.400.000 800.700
(697)	745.000 6.700	(718)	548.700.000 47.000	(739)	450.040.000 89.400
(698)	990.000 3.490	(719)	823.000.000 754.000	(740)	800.900.000 705.000
(699)	753.400 7.500	(720)	307.450.000 754.000	(741)	470.060.000 453.000
(700)	507.000 450	(721)	699.400.000 834.000	(742)	607.040.000 50.700
(701)	905.000 8.700	(722)	549.000.000 427.000	(743)	460.070.000 35.400
(702)	870.000 54.600	(723)	679.780.000 78.500	(744)	607.090.000 40.700
(703)	375.400 92.700	(724)	987.654.000 6.540	(745)	540.807.456 84.796
(704)	875.400 96.600	(725)	927.540.000 896.500	(746)	345.678.075 44.695
(705)	746.300 75.200	(726)	475.000.000 7.964.000	(747)	943.755.457 37.048
(706)	454.000 2.500	(727)	563.002.000 827.400	(748)	845.974.075 50.709

Exercise LVI.

749. Two ships leave port at the same time, one goes 45 miles and the other 67 miles daily, if they sail in opposite directions, how far apart will they be in 6 days?

750. W has \$5670, C has 8 times as much + \$124, and J has 4 times as much as W - \$286; how much have all?

751. Two boats being 6492 miles apart, approach each other at the rate of 48 and 56 miles an hour; how far apart will they be after sailing 38 hours?

752. I bought 4350 bushels of apples at 57cts. a bushel, and five times as many bags of potatoes at 68cts. a bag; how much must I pay for all?

753. My money less \$385, = \$6850, C's money = 5 times as much as mine + \$482; how much have I and how much has C?

754. A horse cost \$175, a carriage \$215, and a store 59 times as much as both less \$96; how much for all?

755. A speculator bought 429 acres of land in Manitoba, his eldest son bought 8 times as many acres less 125 acres, and his brother 127 times as many as both less 4827 acres; how many acres did the last man buy?

756. A wholesale grocer bought 95 barrels of salmon at \$10.50 a barrel; he sold 84 barrels of them at \$12 a barrel, and the remainder at \$9 a barrel; how much did he gain or lose?

757. A cabinet maker earns daily \$1.15; his wife \$1.20, and his three sons \$0.65 each; how much can he lay by every week, the daily expenses of his family being \$2.68?

Exercise LVII.

Find the squares of the following numbers :—

(758)	(759)	(760)	(761)	(762)	(763)	(764)
532	442	944	644	824	777	888
422	344	235	535	633	729	978
514	434	224	624	674	738	886
424	332	414	414	656	747	864
742	441	232	505	464	757	859
435	324	723	555	662	707	748
446	943	822	454	956	773	836
741	346	244	556	649	774	824
445	224	342	572	636	775	812
450	324	941	555	626	776	803
980	746	430	762	287	442	773
642	739	357	192	438	642	642
432	974	432	462	457	793	462
927	685	927	342	726	386	784
849	867	747	938	729	287	985
633	843	879	598	624	728	782
219	677	299	934	424	848	973
196	867	987	878	896	349	207
276	357	583	767	887	638	489
972	437	867	378	165	678	164
355	683	778	638	769	837	640
686	699	279	546	579	481	652

Exercise LVIII.

Find the cubes of the following numbers :—

(765)	(766)	(767)	(768)	(769)	(770)	(771)
655	555	666	407	908	709	498
464	557	656	717	818	919	497
459	566	646	727	828	929	996
964	546	736	737	838	939	995
457	536	626	747	848	949	994
766	566	916	757	858	959	993
459	565	616	767	868	969	992
503	507	406	777	878	979	991
457	564	255	774	888	989	990
646	567	644	775	887	999	988
763	431	374	465	736	433	997
436	742	689	342	794	842	467
846	929	465	756	419	496	489
297	292	387	575	497	738	607
386	844	985	344	348	898	329
762	757	765	848	869	828	789
659	789	986	486	698	639	543

Exercise LIX.

Find the continued product of:—

(772) $8769 \times 23 \times 32 \times 22$	(786) $8449 \times 222 \times 32 \times 31$
(773) $9348 \times 32 \times 21 \times 33$	(787) $7358 \times 333 \times 23 \times 23$
(774) $7583 \times 23 \times 31 \times 13$	(788) $6645 \times 232 \times 33 \times 22$
(775) $5946 \times 33 \times 23 \times 22$	(789) $9357 \times 323 \times 22 \times 32$
(776) $8359 \times 22 \times 21 \times 33$	(790) $4695 \times 233 \times 23 \times 32$
(777) $6473 \times 33 \times 12 \times 51$	(791) $6859 \times 233 \times 22 \times 33$
(778) $6493 \times 333 \times 32 \times 30$	(792) $4716 \times 330 \times 22 \times 32$
(779) $8526 \times 302 \times 23 \times 20$	(793) $8594 \times 220 \times 21 \times 31$
(780) $5947 \times 203 \times 33 \times 13$	(794) $9625 \times 303 \times 20 \times 32$
(781) $6725 \times 313 \times 12 \times 21$	(795) $7592 \times 113 \times 13 \times 30$
(782) $8269 \times 212 \times 21 \times 31$	(796) $8276 \times 311 \times 22 \times 33$
(783) $7548 \times 122 \times 32 \times 23$	(797) $7958 \times 133 \times 20 \times 31$
(784) $6275 \times 331 \times 30 \times 20$	(798) $5872 \times 233 \times 32 \times 20$
(785) $8596 \times 323 \times 21 \times 22$	(799) $4295 \times 332 \times 20 \times 30$

Exercise LX.

Find the value of:—

(800) $9374 \times 334 \times 38 \times 24$	(814) $4836 \times 443 \times 43 \times 40$
(801) $8629 \times 344 \times 44 \times 14$	(815) $5972 \times 442 \times 42 \times 30$
(802) $5837 \times 444 \times 43 \times 42$	(816) $2858 \times 404 \times 20 \times 40$
(803) $2795 \times 434 \times 42 \times 40$	(817) $6887 \times 441 \times 41 \times 20$
(804) $8469 \times 424 \times 24 \times 34$	(818) $4466 \times 144 \times 14 \times 40$
(805) $3344 \times 414 \times 40 \times 43$	(819) $8789 \times 444 \times 34 \times 43$
(806) $7325 \times 555 \times 54 \times 53$	(820) $3827 \times 768 \times 56 \times 70$
(807) $6453 \times 666 \times 56 \times 65$	(821) $4938 \times 879 \times 67 \times 60$
(808) $2798 \times 777 \times 76 \times 75$	(822) $6459 \times 797 \times 77 \times 50$
(809) $4837 \times 888 \times 87 \times 86$	(823) $4338 \times 685 \times 87 \times 90$
(810) $5926 \times 999 \times 98 \times 97$	(824) $6557 \times 567 \times 89 \times 40$
(811) $3874 \times 505 \times 56 \times 57$	(825) $7394 \times 678 \times 88 \times 30$
(812) $6253 \times 665 \times 58 \times 59$	(826) $8762 \times 789 \times 89 \times 20$
(813) $4959 \times 776 \times 67 \times 78$	(827) $9395 \times 978 \times 99 \times 80$

Exercise LXI.

Multiply each number successively ten times by 5, 6, 7, 8, 9.

(828) 438296	(834) 718936	(840) 837295	(846) 483869
(829) 792947	(835) 479652	(841) 628477	(847) 937284
(830) 388776	(836) 875609	(842) 279388	(848) 796277
(831) 554488	(837) 351726	(843) 496277	(849) 493962
(832) 786857	(838) 847257	(844) 872967	(850) 849587
(833) 438579	(839) 976285	(845) 483876	(851) 382276

Exercise LXII.

852. If 7 men do a piece of work in 19 days, how long will it take one man to do it?

853. How many pounds of coffee in 4 bags, each containing 46 pounds? 37 pounds? 50 pounds?

854. If 12 men build a wall in 12 days, how long will it take one man to build it?

855. A farmer sold 16 bushels of potatoes to one man, 20 to another, and 32 to a third, at \$0.90 per bushel; how much did he receive?

856. A farmer exchanged 17 barrels of apples, worth \$5 a barrel, for 12 cords of wood at \$7 a cord. Did he gain or lose and how much?

857. Find the cost of 163 gallons of wine if 5 cost \$6.25.

858. Bought 125 pounds tea at 3 pounds for \$0.90, find cost.

859. Find the cost of 625 barrels of apples if 6 cost \$6.90.

860. If 12 men earn \$36; how much will 20 men earn at the same rate.

861. 10 pounds sugar cost \$1.50, find cost of 30 pounds.

862. If 11 acres produce 187 bushels, find product of 21 acres.

$$(863.) 6 \times 4 - 3 + 9 \times 2 - 40 + 5 \times 4 = ?$$

$$(864.) 18 - 8 \times 10 - 75 \times 2 - 50 + 1 = ?$$

$$(865.) 37 - 3 - 30 \times 6 + 17 - 21 \times 8 = ?$$

$$(866.) 14 \times 4 - 6 + 13 + 17 - 65 \times 8 + 11 - 41 = ?$$

$$(867.) 12 \times 9 - 90 \times 3 - 4 + 11 - 37 \times 5 - 16 = ?$$

$$(868.) 130 - 75 + 5 \times 8 - 400 + 20 - 68 \times 3 = ?$$

$$(869.) 7 + 3 - 4 + 27 - 6 - 12 \times 8 - 26 = ?$$

$$(870.) 9 \times 7 \times 35 - 14 \times 6 + 25 = ?$$

31
23
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43
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869
284
277
062
587
276

Exercises in Division.

Exercise LXII

(1)	$\frac{468}{2}$	(14)	$\frac{873}{3}$	(27)	$\frac{970}{5}$	(40)	$\frac{654}{6}$	(53)	$\frac{399}{7}$	(66)	$\frac{600}{8}$
(2)	$\frac{684}{2}$	(15)	$\frac{744}{3}$	(28)	$\frac{745}{5}$	(41)	$\frac{648}{6}$	(54)	$\frac{287}{7}$	(67)	$\frac{672}{8}$
(3)	$\frac{862}{2}$	(16)	$\frac{784}{4}$	(29)	$\frac{515}{5}$	(42)	$\frac{952}{6}$	(55)	$\frac{203}{7}$	(68)	$\frac{632}{8}$
(4)	$\frac{564}{2}$	(17)	$\frac{648}{4}$	(30)	$\frac{665}{5}$	(43)	$\frac{774}{6}$	(56)	$\frac{679}{7}$	(69)	$\frac{392}{8}$
(5)	$\frac{565}{2}$	(18)	$\frac{716}{4}$	(31)	$\frac{264}{6}$	(44)	$\frac{378}{6}$	(57)	$\frac{987}{7}$	(70)	$\frac{432}{8}$
(6)	$\frac{578}{2}$	(19)	$\frac{912}{4}$	(32)	$\frac{396}{6}$	(45)	$\frac{786}{6}$	(58)	$\frac{959}{7}$	(71)	$\frac{952}{8}$
(7)	$\frac{952}{2}$	(20)	$\frac{624}{4}$	(33)	$\frac{672}{6}$	(46)	$\frac{525}{7}$	(59)	$\frac{826}{7}$	(72)	$\frac{248}{8}$
(8)	$\frac{642}{3}$	(21)	$\frac{932}{4}$	(34)	$\frac{678}{6}$	(47)	$\frac{588}{7}$	(60)	$\frac{616}{7}$	(73)	$\frac{608}{8}$
(9)	$\frac{642}{3}$	(22)	$\frac{756}{4}$	(35)	$\frac{756}{6}$	(48)	$\frac{434}{7}$	(61)	$\frac{192}{8}$	(74)	$\frac{792}{8}$
(10)	$\frac{951}{3}$	(23)	$\frac{795}{5}$	(36)	$\frac{792}{6}$	(49)	$\frac{273}{7}$	(62)	$\frac{376}{8}$	(75)	$\frac{872}{8}$
(11)	$\frac{843}{3}$	(24)	$\frac{670}{5}$	(37)	$\frac{834}{6}$	(50)	$\frac{343}{7}$	(63)	$\frac{832}{8}$	(76)	$\frac{108}{9}$
(12)	$\frac{732}{3}$	(25)	$\frac{455}{5}$	(38)	$\frac{666}{6}$	(51)	$\frac{644}{7}$	(64)	$\frac{736}{8}$	(77)	$\frac{234}{9}$
(13)	$\frac{555}{3}$	(26)	$\frac{875}{5}$	(39)	$\frac{714}{6}$	(52)	$\frac{623}{7}$	(65)	$\frac{336}{8}$	(78)	$\frac{342}{9}$

Exercise. LXIV.

(79) $\frac{420.472}{2}$	(94) $\frac{435.600}{9}$	(109) $\frac{432.536}{8}$	(124) $\frac{478.919}{7}$
(80) $\frac{564.321}{3}$	(95) $\frac{540.026}{2}$	(110) $\frac{405.252}{9}$	(125) $\frac{650.016}{8}$
(81) $\frac{789.016}{4}$	(96) $\frac{644.013}{3}$	(111) $\frac{344.688}{2}$	(126) $\frac{450.009}{9}$
(82) $\frac{407.630}{5}$	(97) $\frac{708.024}{4}$	(112) $\frac{478.353}{3}$	(127) $\frac{807.402}{2}$
(83) $\frac{426.432}{6}$	(98) $\frac{400.055}{5}$	(113) $\frac{107.424}{4}$	(128) $\frac{540.021}{3}$
(84) $\frac{943.873}{7}$	(99) $\frac{333.006}{6}$	(114) $\frac{756.785}{5}$	(129) $\frac{674.108}{4}$
(85) $\frac{694.120}{8}$	(100) $\frac{842.051}{7}$	(115) $\frac{981.006}{6}$	(130) $\frac{470.025}{5}$
(86) $\frac{342.009}{9}$	(101) $\frac{452.616}{8}$	(116) $\frac{453.607}{7}$	(131) $\frac{750.042}{6}$
(87) $\frac{467.112}{2}$	(102) $\frac{870.120}{9}$	(117) $\frac{743.968}{8}$	(132) $\frac{894.509}{7}$
(88) $\frac{834.610}{3}$	(103) $\frac{452.002}{2}$	(118) $\frac{272.263}{9}$	(133) $\frac{870.008}{8}$
(89) $\frac{879.420}{4}$	(104) $\frac{746.786}{3}$	(119) $\frac{400.608}{2}$	(134) $\frac{456.309}{9}$
(90) $\frac{796.425}{5}$	(105) $\frac{540.764}{4}$	(120) $\frac{600.702}{3}$	(135) $\frac{874.224}{9}$
(91) $\frac{492.630}{6}$	(106) $\frac{654.025}{5}$	(121) $\frac{421.036}{4}$	(136) $\frac{630.021}{7}$
(92) $\frac{853.258}{7}$	(107) $\frac{479.040}{6}$	(122) $\frac{604.430}{5}$	(137) $\frac{543.728}{8}$
(93) $\frac{169.400}{8}$	(108) $\frac{751.002}{7}$	(123) $\frac{347.832}{6}$	(138) $\frac{459.624}{9}$

Exercise LXV.

(139)	$\frac{456.789.604}{2}$	(154)	$\frac{405.063.126}{9}$	(169)	$\frac{347.605.112}{8}$
(140)	$\frac{450.065.003}{3}$	(155)	$\frac{476.007.850}{2}$	(170)	$\frac{479.841.111}{9}$
(141)	$\frac{740.067.812}{4}$	(156)	$\frac{651.006.459}{3}$	(171)	$\frac{476.534.852}{2}$
(142)	$\frac{567.878.405}{5}$	(157)	$\frac{876.407.044}{4}$	(172)	$\frac{746.843.409}{3}$
(143)	$\frac{342.144.402}{6}$	(158)	$\frac{797.460.785}{5}$	(173)	$\frac{476.420.016}{4}$
(144)	$\frac{814.756.894}{7}$	(159)	$\frac{741.045.024}{6}$	(174)	$\frac{607.008.400}{5}$
(145)	$\frac{435.607.032}{8}$	(160)	$\frac{345.678.074}{7}$	(175)	$\frac{374.000.100}{6}$
(146)	$\frac{891.086.144}{9}$	(161)	$\frac{654.327.816}{8}$	(176)	$\frac{741.107.808}{7}$
(147)	$\frac{406.784.024}{2}$	(162)	$\frac{400.300.200}{9}$	(177)	$\frac{456.904.112}{8}$
(148)	$\frac{640.233.405}{3}$	(163)	$\frac{234.567.890}{2}$	(178)	$\frac{741.018.207}{9}$
(149)	$\frac{674.806.496}{4}$	(164)	$\frac{764.685.801}{3}$	(179)	$\frac{746.784.320}{5}$
(150)	$\frac{746.805.605}{5}$	(165)	$\frac{954.267.848}{4}$	(180)	$\frac{402.084.006}{6}$
(151)	$\frac{678.472.302}{6}$	(166)	$\frac{685.807.905}{5}$	(181)	$\frac{456.843.765}{7}$
(152)	$\frac{745.607.807}{7}$	(167)	$\frac{421.780.074}{6}$	(182)	$\frac{454.207.808}{8}$
(153)	$\frac{567.845.608}{8}$	(168)	$\frac{945.600.786}{7}$	(183)	$\frac{450.093.024}{9}$

Exercise LXVI.

184. At 4 cents a piece, how many oranges can be bought for 16 cents? 28 cents? 32 cents? 20 cents? 8 cents?

185. How many yards of muslin can be bought for 72 cents, at 6 cents a yard? 8 cents? 12 cents? 9 cents?

186. How many times can 5 yards of cloth be taken from a piece containing 15 yards? 45 yards? 60 yards? 30 yards?

187. By writing 8 lines a day how many days will it take John to write 56 lines? 16 lines? 64 lines? 88 lines? 40 lines?

188. At 11 cents a pound, how many pounds of sugar can be bought for 88 cents? 55 cents? 99 cents? 22 cents?

189. If one man can do a piece of work in 36 days, how long will it take 9 men to do it? 4 men? 6 men? 3 men? 8 men?

190. How many sheep at \$7 a head can be bought for \$49? \$21? \$14? \$35? \$63?

191. If 9 acres of land cost \$976.50, what is the cost of 1 acre?

192. How many barrels of flour at \$8 a barrel can be bought for \$1640?

193. If maple is worth \$6 a cord, how many cords will be had for \$1152?

194. A person wishes to distribute 168 apples equally among 4 boys and girls, how many will each of them receive?

195. A gentleman left his estate, worth \$36100, to be shared equally by his wife and 4 children; what did each receive?

196. If 12 sheep cost \$84, what would 27 sheep cost at that rate?

Exercise LXVII.

(197)	$\frac{354}{11}$	$\frac{243}{18}$	(227)	$\frac{354}{26}$	(242)	$\frac{407}{34}$	(257)	$\frac{746}{42}$	(272)	$\frac{452}{48}$	
(198)	$\frac{405}{11}$	(213)	$\frac{209}{19}$	(228)	$\frac{176}{26}$	(243)	$\frac{852}{35}$	(258)	$\frac{601}{42}$	(273)	$\frac{405}{49}$
(199)	$\frac{207}{12}$	(214)	$\frac{456}{19}$	(229)	$\frac{769}{27}$	(244)	$\frac{654}{35}$	(259)	$\frac{370}{43}$	(274)	$\frac{239}{49}$
(200)	$\frac{407}{12}$	(215)	$\frac{217}{20}$	(230)	$\frac{909}{27}$	(245)	$\frac{307}{36}$	(260)	$\frac{201}{43}$	(275)	$\frac{804}{49}$
(201)	$\frac{174}{13}$	(216)	$\frac{549}{20}$	(231)	$\frac{404}{28}$	(246)	$\frac{207}{36}$	(261)	$\frac{405}{44}$	(276)	$\frac{999}{49}$
(202)	$\frac{274}{13}$	(217)	$\frac{376}{21}$	(232)	$\frac{197}{28}$	(247)	$\frac{545}{37}$	(262)	$\frac{898}{44}$	(277)	$\frac{754}{50}$
(203)	$\frac{856}{14}$	(218)	$\frac{654}{21}$	(233)	$\frac{207}{29}$	(248)	$\frac{629}{37}$	(263)	$\frac{908}{45}$	(278)	$\frac{854}{50}$
(204)	$\frac{984}{14}$	(219)	$\frac{474}{22}$	(234)	$\frac{301}{29}$	(249)	$\frac{405}{38}$	(264)	$\frac{378}{45}$	(279)	$\frac{970}{50}$
(205)	$\frac{205}{15}$	(220)	$\frac{694}{22}$	(235)	$\frac{761}{30}$	(250)	$\frac{343}{38}$	(265)	$\frac{426}{46}$	(280)	$\frac{754}{51}$
(206)	$\frac{345}{15}$	(221)	$\frac{493}{23}$	(236)	$\frac{454}{30}$	(251)	$\frac{954}{39}$	(266)	$\frac{900}{46}$	(281)	$\frac{891}{51}$
(207)	$\frac{456}{16}$	(222)	$\frac{895}{23}$	(237)	$\frac{197}{31}$	(252)	$\frac{452}{39}$	(267)	$\frac{276}{47}$	(282)	$\frac{898}{52}$
(208)	$\frac{764}{16}$	(223)	$\frac{745}{24}$	(238)	$\frac{285}{31}$	(253)	$\frac{840}{40}$	(268)	$\frac{579}{47}$	(283)	$\frac{964}{53}$
(209)	$\frac{804}{17}$	(224)	$\frac{606}{24}$	(239)	$\frac{725}{32}$	(254)	$\frac{640}{40}$	(269)	$\frac{824}{47}$	(284)	$\frac{825}{53}$
(210)	$\frac{652}{17}$	(225)	$\frac{542}{25}$	(240)	$\frac{425}{33}$	(255)	$\frac{321}{41}$	(270)	$\frac{904}{48}$	(285)	$\frac{976}{54}$
(211)	$\frac{194}{18}$	(226)	$\frac{780}{25}$	(241)	$\frac{205}{34}$	(256)	$\frac{719}{41}$	(271)	$\frac{804}{48}$	(286)	$\frac{985}{55}$

Exercise LXVIII.

(287)	874.187	(302)	793.751	(317)	678.541	(332)	756.000
	11		26		41		56
(288)	543.288	(303)	653.981	(318)	458.715	(333)	858.415
	12		27		42		57
(289)	850.351	(304)	434.741	(319)	659.415	(334)	961.410
	13		28		43		58
(290)	609.420	(305)	704.900	(320)	379.600	(335)	867.010
	14		29		44		59
(291)	453.525	(306)	954.999	(321)	409.999	(336)	876.710
	15		30		45		60
(292)	875.656	(307)	875.405	(322)	710.756	(337)	984.824
	16		31		46		61
(293)	905.765	(308)	985.784	(323)	611.276	(338)	787.567
	17		32		47		62
(294)	654.832	(309)	805.909	(324)	823.507	(339)	489.217
	18		33		48		63
(295)	263.950	(310)	706.425	(325)	925.404	(340)	594.115
	19		34		49		64
(296)	405.680	(311)	476.376	(326)	432.605	(341)	699.999
	20		35		50		65
(297)	471.020	(312)	847.216	(327)	635.701	(342)	715.840
	21		36		51		66
(298)	901.540	(313)	957.517	(328)	739.401	(343)	750.010
	22		37		52		67
(299)	652.547	(314)	487.804	(329)	845.001	(344)	840.025
	23		38		53		68
(300)	452.764	(315)	897.901	(330)	549.800	(345)	230.415
	24		39		54		69
(301)	743.240	(316)	497.999	(331)	654.217	(346)	345.011
	25		40		55		70

Exercise LXIX.

(347)	<u>475.450.840</u>	(362)	<u>755.432.679</u>	(377)	<u>936.070.041</u>
	11		26		41
(348)	<u>768.041.374</u>	(363)	<u>814.301.654</u>	(378)	<u>648.678.534</u>
	12		27		42
(349)	<u>471.104.074</u>	(364)	<u>971.703.850</u>	(379)	<u>822.079.809</u>
	13		28		43
(350)	<u>607.240.879</u>	(365)	<u>847.400.590</u>	(380)	<u>843.557.907</u>
	14		29		44
(351)	<u>409.465.837</u>	(366)	<u>472.437.001</u>	(381)	<u>797.079.028</u>
	15		30		45
(352)	<u>742.101.407</u>	(367)	<u>959.001.405</u>	(382)	<u>810.676.427</u>
	16		31		46
(353)	<u>407.698.839</u>	(368)	<u>465.746.803</u>	(383)	<u>957.435.876</u>
	17		31		47
(354)	<u>849.907.432</u>	(369)	<u>758.343.205</u>	(384)	<u>487.424.807</u>
	18		32		48
(355)	<u>651.201.001</u>	(370)	<u>671.457.604</u>	(385)	<u>633.576.807</u>
	19		34		49
(356)	<u>476.958.421</u>	(371)	<u>897.435.804</u>	(386)	<u>776.446.898</u>
	20		35		50
(357)	<u>374.007.096</u>	(372)	<u>714.501.781</u>	(387)	<u>454.654.807</u>
	21		36		51
(358)	<u>849.003.004</u>	(373)	<u>684.250.079</u>	(388)	<u>897.964.807</u>
	22		37		52
(359)	<u>971.400.520</u>	(374)	<u>545.654.087</u>	(389)	<u>943.079.045</u>
	23		38		53
(360)	<u>456.742.870</u>	(375)	<u>418.387.099</u>	(390)	<u>795.900.876</u>
	24		39		54
(361)	<u>849.907.482</u>	(376)	<u>795.0103544</u>	(391)	<u>814.355.877</u>
	25		40		55

Exercise. LXX.

392. If 63 acres of land cost \$7938, what will one acre cost?

393. If 516 chairs cost \$2012.40, what will one chair cost?

394. What is the price of butter per pound, when 300 pounds cost \$105?

395. How many yards of cloth can be purchased for \$633.50 at \$3.62 per yard?

396. How many sheep can be bought for \$3216 at the rate of \$6 per head?

397. In how many days will a bank realize \$35082, if its profits are \$9 a day?

398. A merchant gained 139875 dollars in 11 years; what was his average yearly gain?

399. How many loads may be taken from a bank of gravel of 32806 cubic feet, if each load contain 11 cubic feet?

400. How many bottles of mucilage at 10 cents a bottle, will pay for 40 copies at 4 cents each?

401. At the rate of 28 miles in 7 hours, how far would a man travel in 20 hours? 11 hours? 14 hours?

Find the value of:—

(402.) $5 \times 4 \div 2 + 7 - 3 \times 6 - 24 + 6 \div 11 + 4 = ?$

(403.) $3 + 13 \times 5 - 60 - 5 \times 3 + 4 \div 7 - 2 + 8 \times 3 = ?$

(404.) $27 - 3 \div 8 + 9 \times 6 - 50 \times 3 - 16 + 25 \div 3 = ?$

(405.) $48 \div 6 + 3 \times 9 + 1 \div 10 - 4 \times 13 - 8 \div 7 + 4 = ?$

(406.) $144 \div 12 - 1 \times 11 - 13 \div 9 - 5 \times 6 - 2 \div 10 = ?$

(407.) $7 \times 9 - 3 \div 4 + 3 \times 3 - 4 \times 2 - 19 \div 9 = ?$

(408.) $36 + 9 \div 5 + 2 \div 3 + 4 \times 5 - 25 \div 8 + 6 = ?$

(409.) $21 + 9 \times 4 - 10 \div 11 + 16 \div 2 - 3 - 1 \times 9 = ?$

(410.) $108 \div 12 + 11 + 4 \div 4 + 1 \times 7 - 2 \div 3 \times 7 = ?$

(411.) $86 - 31 \div 11 + 17 - 4 \div 9 + 7 \times 4 + 11 - 2 = ?$

Exercise LXXI.

(412)	$\frac{949.505.670}{56}$	(427)	$\frac{360.417.875}{71}$	(442)	$\frac{701.070.076}{86}$
(413)	$\frac{775.865.475}{57}$	(428)	$\frac{774.987.652}{72}$	(443)	$\frac{400.784.691}{87}$
(414)	$\frac{894.876.415}{58}$	(429)	$\frac{307.904.287}{73}$	(444)	$\frac{487.807.321}{88}$
(415)	$\frac{743.239.021}{59}$	(430)	$\frac{160.801.431}{74}$	(445)	$\frac{174.749.854}{89}$
(416)	$\frac{674.239.021}{60}$	(431)	$\frac{601.476.801}{75}$	(446)	$\frac{791.078.984}{90}$
(417)	$\frac{717.401.895}{61}$	(432)	$\frac{207.405.807}{76}$	(447)	$\frac{479.783.921}{91}$
(418)	$\frac{116.418.209}{62}$	(433)	$\frac{896.047.040}{77}$	(448)	$\frac{431.651.423}{92}$
(419)	$\frac{442.372.407}{63}$	(434)	$\frac{187.208.147}{78}$	(449)	$\frac{810.784.769}{93}$
(420)	$\frac{659.416.507}{64}$	(435)	$\frac{804.456.902}{79}$	(450)	$\frac{947.654.301}{94}$
(421)	$\frac{790.845.884}{65}$	(436)	$\frac{347.263.807}{80}$	(451)	$\frac{748.354.278}{95}$
(422)	$\frac{405.674.802}{66}$	(437)	$\frac{574.375.804}{81}$	(452)	$\frac{107.405.007}{96}$
(423)	$\frac{107.505.673}{67}$	(438)	$\frac{142.000.071}{82}$	(453)	$\frac{450.098.077}{97}$
(424)	$\frac{590.406.807}{68}$	(439)	$\frac{763.432.876}{83}$	(454)	$\frac{546.874.301}{98}$
(425)	$\frac{808.904.706}{69}$	(440)	$\frac{952.654.028}{84}$	(455)	$\frac{907.941.561}{99}$
(426)	$\frac{107.405.873}{70}$	(441)	$\frac{629.807.423}{85}$	(456)	$\frac{427.850.017}{99}$

Exercise LXXII.

(457) $\frac{474.050}{470}$	(472) $\frac{654.054}{897}$	(487) $\frac{452.870}{642}$	(502) $\frac{679.742}{543}$
(458) $\frac{870.047}{245}$	(473) $\frac{831.654}{245}$	(488) $\frac{572.070}{452}$	(503) $\frac{678.751}{290}$
(459) $\frac{654.207}{147}$	(474) $\frac{907.850}{307}$	(489) $\frac{676.424}{346}$	(504) $\frac{479.769}{419}$
(460) $\frac{984.805}{207}$	(475) $\frac{450.076}{805}$	(490) $\frac{954.670}{654}$	(505) $\frac{897.987}{517}$
(461) $\frac{832.405}{115}$	(476) $\frac{212.904}{761}$	(491) $\frac{908.405}{607}$	(506) $\frac{875.756}{174}$
(462) $\frac{976.804}{576}$	(477) $\frac{920.040}{274}$	(492) $\frac{454.026}{247}$	(507) $\frac{904.868}{207}$
(463) $\frac{475.007}{387}$	(478) $\frac{576.452}{384}$	(493) $\frac{609.805}{795}$	(508) $\frac{657.476}{794}$
(464) $\frac{805.940}{276}$	(479) $\frac{607.890}{955}$	(494) $\frac{504.807}{605}$	(509) $\frac{457.684}{850}$
(465) $\frac{800.010}{441}$	(480) $\frac{764.805}{359}$	(495) $\frac{430.020}{729}$	(510) $\frac{842.196}{374}$
(466) $\frac{307.401}{109}$	(481) $\frac{975.450}{970}$	(496) $\frac{473.724}{342}$	(511) $\frac{767.765}{451}$
(467) $\frac{506.825}{375}$	(482) $\frac{807.405}{709}$	(497) $\frac{624.746}{447}$	(512) $\frac{896.875}{675}$
(468) $\frac{375.407}{289}$	(483) $\frac{389.807}{778}$	(498) $\frac{946.762}{175}$	(513) $\frac{497.680}{290}$
(469) $\frac{820.706}{189}$	(484) $\frac{343.507}{246}$	(499) $\frac{874.684}{789}$	(514) $\frac{845.790}{475}$
(470) $\frac{546.079}{345}$	(485) $\frac{576.403}{876}$	(500) $\frac{784.198}{346}$	(515) $\frac{845.495}{849}$
(471) $\frac{452.827}{304}$	(486) $\frac{236.478}{247}$	(501) $\frac{395.736}{143}$	(516) $\frac{574.604}{341}$

Exercise LXXIII.

(517)	$\frac{745.401.807}{201}$	(532)	$\frac{456.305.491}{457}$	(547)	$\frac{764.832.907}{415}$
(518)	$\frac{496.807.904}{357}$	(533)	$\frac{607.324.087}{579}$	(548)	$\frac{607.451.960}{876}$
(519)	$\frac{547.076.974}{144}$	(534)	$\frac{357.429.830}{245}$	(549)	$\frac{745.653.842}{977}$
(520)	$\frac{596.807.904}{678}$	(535)	$\frac{650.027.701}{987}$	(550)	$\frac{654.374.856}{429}$
(521)	$\frac{745.864.370}{198}$	(536)	$\frac{345.676.407}{287}$	(551)	$\frac{376.496.908}{245}$
(522)	$\frac{740.876.451}{954}$	(537)	$\frac{675.451.007}{379}$	(552)	$\frac{300.457.089}{897}$
(523)	$\frac{594.870.076}{369}$	(538)	$\frac{809.596.433}{876}$	(553)	$\frac{543.087.341}{576}$
(524)	$\frac{104.856.009}{595}$	(539)	$\frac{753.450.076}{754}$	(554)	$\frac{176.048.276}{379}$
(525)	$\frac{397.450.096}{279}$	(540)	$\frac{429.376.407}{347}$	(555)	$\frac{534.875.706}{676}$
(526)	$\frac{547.607.007}{457}$	(541)	$\frac{576.827.452}{634}$	(556)	$\frac{567.805.974}{347}$
(527)	$\frac{674.320.134}{157}$	(542)	$\frac{835.079.453}{744}$	(557)	$\frac{976.854.079}{496}$
(528)	$\frac{746.369.804}{796}$	(543)	$\frac{652.025.044}{297}$	(558)	$\frac{679.854.374}{447}$
(529)	$\frac{564.600.070}{596}$	(544)	$\frac{654.307.854}{387}$	(559)	$\frac{987.697.004}{576}$
(530)	$\frac{600.724.375}{375}$	(545)	$\frac{907.454.263}{395}$	(560)	$\frac{546.894.325}{470}$
(531)	$\frac{794.827.954}{547}$	(546)	$\frac{504.009.475}{465}$	(561)	$\frac{746.876.381}{279}$

Exercise LXXIV.

562. At 95 dollars each, how many oxen can be bought for \$3040?

563. In one hogshead are 63 gallons; how many hogsheads in 6615 gallons?

564. Nine thousand dollars was paid to 75 operatives; what did each receive?

565. Paid \$17100 for a farm, at the rate of \$36 an acre. How many acres did it contain?

566. The product of two numbers is 661045; one of the numbers is 85; what is the other?

567. At \$0.30 per volume, how many volumes can be bought for \$69?

568. How many yards of carpet, at \$4.60 per yard, can be bought for \$676.20?

569. What is the price of a silver cover, if 15 cost \$117?

570. A butcher gave \$66 for sheep at the rate of \$3.30 each; how many sheep did he buy?

571. A farmer sold 356 oxen at the rate of \$192; what did he receive for them?

572. How many gallons of molasses, at 45 cents a gallon, will pay for 86490 pounds of butter at 25 cents a pound?

573. I bought 14 barrels of pork at \$12 a barrel, and sold it for \$154; how much did I gain or lose?

574. A farmer wishes to exchange 200 bushels of oats at 35 cents a bushel, for flour at \$8 a barrel; how many barrels will he receive?

575. The product is 2962875, and the multiplier is 375; what is the multiplicand?

Exercise LXXV.

(576)	$\begin{array}{r} 407.884.257 \\ \hline 47.679 \\ \hline 600.457.824 \end{array}$	(591)	$\begin{array}{r} 864.207.450 \\ \hline 79.672 \\ \hline 765.846.907 \end{array}$	(606)	$\begin{array}{r} 8.743.201.006 \\ \hline 437.208 \\ \hline 5.421.814.351 \end{array}$
(577)	$\begin{array}{r} 67.453 \\ \hline 874.253.007 \end{array}$	(592)	$\begin{array}{r} 29.674 \\ \hline 746.852.925 \end{array}$	(607)	$\begin{array}{r} 789.079 \\ \hline 6.874.674.189 \end{array}$
(578)	$\begin{array}{r} 47.076 \\ \hline 647.024.790 \end{array}$	(593)	$\begin{array}{r} 37.654 \\ \hline 879.453.827 \end{array}$	(608)	$\begin{array}{r} 145.890 \\ \hline 4.245.873.901 \end{array}$
(579)	$\begin{array}{r} 87.834 \\ \hline 574.347.018 \end{array}$	(594)	$\begin{array}{r} 46.953 \\ \hline 784.209.781 \end{array}$	(609)	$\begin{array}{r} 947.684 \\ \hline 8.461.704.656 \end{array}$
(580)	$\begin{array}{r} 27.402 \\ \hline 545.885.754 \end{array}$	(595)	$\begin{array}{r} 87.768 \\ \hline 600.748.140 \end{array}$	(610)	$\begin{array}{r} 252.674 \\ \hline 5.340.007.453 \end{array}$
(581)	$\begin{array}{r} 17.383 \\ \hline 245.627.964 \end{array}$	(596)	$\begin{array}{r} 19.875 \\ \hline 4.765.845.375 \end{array}$	(911)	$\begin{array}{r} 986.364 \\ \hline 6.780.400.791 \end{array}$
(582)	$\begin{array}{r} 45.972 \\ \hline 574.089.572 \end{array}$	(597)	$\begin{array}{r} 149.807 \\ \hline 7.432.017.854 \end{array}$	(612)	$\begin{array}{r} 677.400 \\ \hline 7.464.804.605 \end{array}$
(583)	$\begin{array}{r} 13.427 \\ \hline 101.234.825 \end{array}$	(598)	$\begin{array}{r} 197.685 \\ \hline 5.421.876.967 \end{array}$	(613)	$\begin{array}{r} 296.489 \\ \hline 1.700.095.084 \end{array}$
(584)	$\begin{array}{r} 24.507 \\ \hline 741.020.070 \end{array}$	(599)	$\begin{array}{r} 198.489 \\ \hline 7.485.689.704 \end{array}$	(614)	$\begin{array}{r} 346.845 \\ \hline 7.465.829.434 \end{array}$
(585)	$\begin{array}{r} 41.976 \\ \hline 428.673.451 \end{array}$	(600)	$\begin{array}{r} 198.345 \\ \hline 1.107.405.070 \end{array}$	(615)	$\begin{array}{r} 247.674 \\ \hline 9.467.807.008 \end{array}$
(586)	$\begin{array}{r} 54.607 \\ \hline 705.906.408 \end{array}$	(601)	$\begin{array}{r} 189.345 \\ \hline 5.748.056.769 \end{array}$	(616)	$\begin{array}{r} 374.817 \\ \hline 4.764.822.400 \end{array}$
(587)	$\begin{array}{r} 19.854 \\ \hline 680.007.901 \end{array}$	(602)	$\begin{array}{r} 297.097 \\ \hline 4.427.807.954 \end{array}$	(617)	$\begin{array}{r} 764.604 \\ \hline 4.684.767.484 \end{array}$
(588)	$\begin{array}{r} 45.691 \\ \hline 579.087.074 \end{array}$	(603)	$\begin{array}{r} 987.064 \\ \hline 8.470.364.076 \end{array}$	(618)	$\begin{array}{r} 896.748 \\ \hline 6.748.950.076 \end{array}$
(589)	$\begin{array}{r} 20.045 \\ \hline 456.687.654 \end{array}$	(604)	$\begin{array}{r} 289.049 \\ \hline 7.456.842.076 \end{array}$	(619)	$\begin{array}{r} 978.484 \\ \hline 6.456.097.458 \end{array}$
(590)	$\begin{array}{r} 75.979 \\ \hline \end{array}$	(605)	$\begin{array}{r} 450.368 \\ \hline \end{array}$	(620)	$\begin{array}{r} 374.807 \\ \hline \end{array}$

Exercise LXXVI.

Divide successively by 2, 3, and 4 till the quotient is less than the divisor :—

(621) 2370453846	(631) 5823726425	(641) 5837062484
(622) 4754386274	(632) 6025372563	(642) 8321625842
(623) 6240837204	(633) 2543562792	(643) 7259308468
(624) 8624054736	(634) 8627503164	(644) 5174326456
(625) 5837246948	(635) 9383726426	(645) 6294897228
(626) 4320725638	(636) 4583672054	(646) 4927160554
(627) 5821072644	(637) 7212288662	(647) 9106248376
(628) 3827958348	(638) 8327156274	(648) 2728682844
(629) 2742936858	(639) 9120715638	(649) 9127304762
(630) 4829171442	(640) 4628047588	(650) 4273884764

Exercise LXXVII.

Divide successively by 7, 9, 5, 4, and 3 till the quotient is less than the divisor :—

(651) 2816486494	(662) 5361339979	(673) 6698979784
(652) 3726819632	(663) 5231894284	(674) 8907627562
(653) 4432226878	(664) 9925251342	(675) 9662699663
(654) 4358764246	(665) 3829359788	(676) 7558594938
(655) 2607954873	(666) 5737888547	(677) 7466894939
(656) 7758344244	(667) 5948923366	(678) 8643897244
(657) 4189727042	(668) 7555774454	(679) 6764048642
(658) 2900364873	(669) 7463463732	(680) 8496725863
(659) 9540480581	(670) 9376340693	(681) 8779320767
(660) 1460781392	(671) 9284639221	(682) 7268895628
(661) 4387637488	(672) 3985074235	(683) 9842946829

Exercise LXXVIII

Divide, using the factors of the divisors :—

(684) 10592 ÷ 48	(697) 9859841 ÷ 24	(710) 3927587 ÷ 48
(685) 17649 ÷ 49	(698) 4019289 ÷ 16	(711) 3902764 ÷ 56
(686) 57404 ÷ 54	(699) 7005764 ÷ 18	(712) 9270542 ÷ 63
(687) 75616 ÷ 56	(700) 3393754 ÷ 25	(713) 8270593 ÷ 54
(688) 50047 ÷ 63	(701) 5285688 ÷ 27	(714) 8910639 ÷ 72
(689) 62144 ÷ 64	(702) 8320007 ÷ 20	(715) 2785888 ÷ 81
(690) 87496 ÷ 66	(703) 6971529 ÷ 32	(716) 9276844 ÷ 35
(691) 73248 ÷ 72	(704) 7416326 ÷ 42	(717) 3725057 ÷ 32
(692) 56533 ÷ 77	(705) 3906254 ÷ 46	(718) 2847523 ÷ 42
(693) 12000 ÷ 80	(706) 2778882 ÷ 48	(719) 3889767 ÷ 49
(694) 31441 ÷ 81	(707) 2394241 ÷ 56	(720) 6620746 ÷ 36
(695) 92704 ÷ 84	(708) 5776967 ÷ 54	(721) 3725422 ÷ 28
(696) 49842 ÷ 63	(709) 9780097 ÷ 42	(722) 4896352 ÷ 65

Exercise LXXIX.

723. Two men have together \$10000 one of them has \$900 less than the other. They bought horses at \$150 each ; how many horses did each buy?

724. How many boards, each 12 feet long, will be required to build a fence 8560 feet long, the fence being 5 boards high?

725. What number subtracted 18 times from 97632, will leave 2232 as a remainder?

726. The sum of two numbers is 1187, and the lesser number is 102 ; find their product.

727. If a person pays \$1.38 for 6 pounds of butter, how many pounds ought he to get for \$276?

728. How many times can 236 be subtracted from 2124?

729. Divide the product of 204 and 378, by their difference.

730. If a mechanic receive \$1500 a year for his labor, and his expenses are \$968, in what time can he save enough to buy 28 acres of land at \$133 an acre?

731. In an exercise in Division the dividend is 78789, the quotient 137, and the remainder 14; find the divisor.

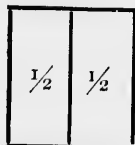
732. The product of three numbers is 535,500 ; one of the numbers is 68, and another 75 ; what is the third?

733. A has \$3,540 more than B, and \$1,200 less than C, who has \$20,600 ; D has as much as A and B together. How much has D?

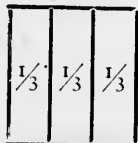
734. Of what number is 3,042 both divisor and quotient?

735. Bought 60 yards of cloth at the rate of 2 yards for \$5, and 80 yards more at the rate of 4 yards for \$9 ; I immediately sold the whole at the rate of 5 yards for \$14. How much did I gain?

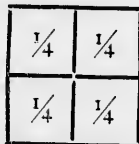
Introductory Fractions.



1 unit = $\frac{2}{2}$ { If a unit is divided into two
equal parts, one of the parts is
called one half



1 unit = $\frac{3}{3}$ { If the unit is divided into three
equal parts, one of the parts is
called one third; two of the
parts are called two thirds.



1 unit = $\frac{4}{4}$ { If the unit is divided into four
equal parts, one of the parts is
called one fourth; two of the
parts are called two fourths, and
three of the parts, three fourths.

Exercise LXXX.

1. How many halves in a unit? in 2 units? in 3 units? in 4 units? in 6 units?
2. How many thirds in a unit? in 2 units? in 3 units? in 5 units? in 8 units?
3. How many fourths in a unit? in 2 units? in 4 units? in 10 units?
4. How many halves in a unit and a half? in 2 units and a half? in 3 units and a half?
5. How many thirds in 3 units and a third? in 5 units and two thirds?

Exercise LXXXI.

6. Find $\frac{1}{2}$ of 4, $\frac{3}{4}$ of 8.

SOLUTION.—I. To find $\frac{1}{2}$ of any number divide that number by 2. Thus $\frac{1}{2}$ of 4 = $4 \div 2 = 2$ *Ans.*

II. $\frac{3}{4}$ of 8 = 3 times $\frac{1}{4}$ of 8. Since $\frac{1}{4}$ of 8 = $8 \div 4$, therefore $\frac{3}{4}$ of 8 = $(8 \div 4) \times 3 = 6$ *Ans.*

7. What is $\frac{1}{2}$ of 6? of 10? of 14? of 20? of 24? of 30? of 50?

8. What is $\frac{1}{3}$ of 9? of 12? of 15? of 18? of 24? of 30? of 75?

9. What is $\frac{1}{4}$ of 12? of 16? of 24? of 36? of 48? of 160? of 200?

10. What is $\frac{2}{3}$ of 9? of 12? of 18? of 21? of 60? of 90? of 120? of 300?

11. What is $\frac{3}{4}$ of 12? of 16? of 20? of 28? of 36? of 100? of 400?

12. When coal is worth 8 dollars a ton, what must be paid for $\frac{1}{4}$ of a ton?

13. If there are 12 ounces in a pound, how many ounces in $\frac{2}{3}$ of a pound?

14. If there are 100 cents in a dollar, how many cents in $\frac{3}{4}$ of a dollar?

Exercise LXXXII.

15. What will $72\frac{1}{2}$ yards of silk cost at \$4 a yard?

SOLUTION.—I. If one yard cost \$4, $72\frac{1}{2}$ yards will cost $72\frac{1}{2}$ times \$4. 72 times \$4 = \$288; and $\frac{1}{2}$ of \$4 = \$2. Hence $72\frac{1}{2}$ yards will cost \$288 + \$2. = \$290 *Ans.*

16. At 30 cents a pound, what will $8\frac{2}{3}$ pounds of tea cost?

17. If a man pays $22\frac{1}{2}$ cents a pound for beef, what will 50 pounds cost him?

18. When raisins are worth $\frac{2}{3}$ of a dollar a box, what will 135 boxes cost?

19. What must a grocer pay for 36 bushels of potatoes at $62\frac{1}{2}$ cents a bushel?

Exercise LXXXIII.

20. What will 52 pounds of sugar cost at $11\frac{3}{4}$ cents a pound?

21. A man having \$900, spent $\frac{2}{3}$ of it; how much had he left?

22. What cost 1297 dozen of eggs at $16\frac{1}{2}$ cents a dozen?

23. At 20 cents a pound for honey, what must you pay for half a pound?

24. At $6\frac{1}{4}$ cents a spool, what cost 9245 spools of thread?

25. What cost 7842 yards of muslin at $33\frac{1}{3}$ cents a yard?

26. What is the cost of 525 pounds of sugar at $12\frac{1}{2}$ cents a pound?

27. Find the cost of 2500 melons at 25 cents each.

28. What must be paid for 6 bales of cotton, containing 420 pounds each, at $16\frac{2}{3}$ cents a pound?

29. What will 18 pieces of calico cost, each containing 45 yards, at 25 cents a yard.

30. If a wheel turns 480 times in going a mile, how many times will it turn in going $\frac{5}{8}$ of a mile?

31. At $\$2\frac{3}{4}$ a yard, what will be the cost of 240 yards of silk?

32. A boy sold $9\frac{1}{4}$ dozen of eggs at 4 cents a piece. He received in payment $6\frac{1}{2}$ pounds of butter at 20 cents a pound, and $13\frac{3}{4}$ yards of ribbon at 3 cents a yards. How much is still due him?

Bills.

A *Bill*, in business transactions, is a written statement of articles bought or sold, together with the prices of each, and the whole cost.

Exercise LXXXIV.

Find the cost of the several articles, and the amount of the following bills :

(1.)

*Toronto, May 20, 1893.**G. J. Nichol,**Bought of A. R. TAVERNER,*

336 yds. Muslin,	@ 26c.....	\$	
98½ " Canton Flannel,	@ 18c.....		
162 " Victoria Gingham,	@ 16½c....		
110 " Cassimere,	@ \$2.87½..		

Ans. \$

(2.)

*Rochester, May 15, 1893.**W. C. Kennedy,**Bought of PAPE & Co.*

14 lbs. Coffee Sugar,	@ 11c....	\$	
6 " Y. H. Tea,	@ 62½c..		
25 " No. 1 Mackerel,	@ 6c.....		
6 bushels Potatoes,	@ 37½c..		
3 gallons Syrup,	@ 80c....		
7 dozen of Eggs,	@ 16c....		

Ans. \$

(3.)

*Hamilton, May 20, 1893.**W. Malone,**Bought of M. STAFFORD,*

36 lbs. Sugar,	@ 8c.....	\$	
18 " Coffee,	@ 15c....		
24 " Butter,	@ 18c....		
10 doz. Eggs,	@ 12½c..		
4 gallons Molasses,	@ 44c....		

Ans. \$

(4.)

Brantford, August 20th, 1893.

John S. Korman,

Bought of HENRY O'CONNOR,

20 chests Green Tea,	@	\$22.50...	\$	
16 " Black "	@	18.75...		
14 " Imperial Tea,	@	32.87½..		
15 sacks Java Coffee,	@	17.83..		
25 boxes Oranges,	@	4.62½..		

Ans. \$

Received payment,

Henry O'Connor.

(5.)

Hamilton, 16th August, 1893.

Thomas Sweeney,

To JOHN DELORME, Dr.

1892				
April	28	To 3 lbs. Java Coffee,	@	33c..
		12 lbs. B. L. Sugar,	@	11c..
	30	4 gal. Molasses,	@	88c..
June.	1	7 lbs. B. Tea,	@	65c..
		9 lbs. Butter,	@	16c..
		<i>Cr.</i>		
Aug.	1	By 5 quires Note Paper,	@	18c..
		3 packages Envelopes	@	15c..
		2 bottles Ink,	@	15c..
		5 boxes Pens,	@	35c..

Balance due \$

Received payment,

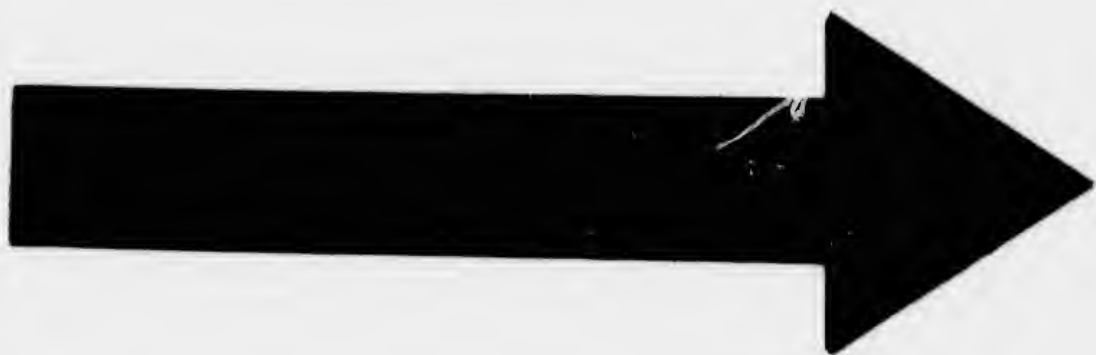
John Delorme.

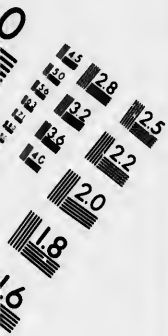
August 19th, 1893.

Exercise LXXXV.

Make up the following bills in proper form :—

6. Sold in Niagara, Feb. 2, 1893, by D. Nolan, to Mr. J. Maguire, viz.: 7 lbs. chocolate, at 25 cts.; 15 lbs. candles, at 22 cts.; 12 lbs. sugar, at 15 cts.; 18 lbs. flour, at 24 cts.





Exercise LXXXVI.

7. John E. Shea of Toronto, sold to D. Simons, Feb. 10, 1893, 15 lbs. of butter, at 17 cts.; 25 lbs. of cheese, at 20 cts.; 750 lbs. maple sugar, at 9 cts.; 278 lbs. of coffee, at 36 cts.

8. J. C. O'Brien, Brockville, sold, Jan. 8, 1893, to J. B. Wright, 37 yds. sheeting, at 26 cts.; 43 yds. lace, at 82 cts.; Feb. 3, 75 yds. Irish linen, at 45 cts.; 209 yds. muslin, at 14 cts.; 330 yds. doilies at 16 cts.

9. J. H. Cashman, bought of John Thomson, Toronto: May 12, 1892, 18 plows, at \$11; 23 handsaws, at \$3.50; 90 spades, at 86 cts.; May 30, 26 shovels, at 50 cts.; 4600 lbs. iron at \$12 a 100 lbs.; June 7, 14 hammers, at 62 cts.; 12 mill saws, at \$12.12; June 7, credited by cash, \$140; June 15, credited by cash \$375. What balance was due J. Thompson, June 16?

10. G. Schell, Chatham, sold to J. Sheehan, May 5, 1893, 20 lbs. Rio coffee, at 24 cts.; 50 lbs. W. I. sugar, at 7 cts.; 75 lbs. pearl starch, at 13 cts.; 12 gallons syrup, at 65 cts.; 90 lbs. butter crackers, at 11 cts.

11. Chas. Hanrahan, sold to F. Murphy, on Oct. 28, 1892, 24 outside window-sash, at \$3.50; 48 pieces of window-stops at 2½ cts.; and 24 slide ventilators at 30 cts.

12. Sold by J. M. O'Reilly, Owen Sound, April 10, 1893, to A. Gordon: 278 lbs. coffee, at 36 cts.; 1270 lbs. lard, at 13 cts.; 800 lbs. ham, at 11 cts.; 1540 lbs. corned beef, at 8 cts.; 750 lbs. butter, at 17 cts.; 217 lbs. maple sugar, at 7 cts.; 126 doz. eggs, at 12 cents; 150 bushels oats, at 65 cts.

13. Sold in Toronto, April 20, 1893, by Isaac Chambers, to Mrs. Julia Meredith, and the bill paid: 3 doz. silver table forks, at \$43.75 a doz.; 2 doz. silver table spoons, at \$35 a doz.; 2½ doz. silver teaspoons, at \$18.50 a doz.; 1½ doz. ivory handle knives, at \$7.50 a doz.; 1 gold guard chain, at \$1.36.

Exercise LXXXVII.

14. P. Barry & Son, Kingston, sold to H. Miller, March 6, 1893, as follows. 2 loaves white sugar, 52 lbs., at 15 cts.; 4 bbls. extra flour, at \$7.80; $9\frac{1}{2}$ lbs. cheese, at 16 cts.; 15 lbs. raisins, at 15 cts.; 7 lbs. black pepper, at 42 cts.; 20 lbs. butter, at 23 cts.; 3 bus. peas at 70 cts.; 5 bus. beans, at \$1.10; $14\frac{1}{2}$ lbs. bacon, at 16 cts.; 1 gal. molasses, 90 cts.

15. Messrs. Hall and Brothers, St. John, N. B., sold, June 1, 1893, to P. N. Walsh, 15260 lbs. pork, at $5\frac{1}{2}$ cts.; 7262 lbs. cheese, at $8\frac{1}{2}$ cts.; July 3, 11521 bus. corn, at 50 cts.; July 10, 1560 bbls. flour, at \$6.12 $\frac{1}{2}$. On the above are the following credits: June 25, by 1150 lbs. cotton, at $6\frac{1}{4}$ cts.; June 30, by cash. \$7.50; July 12, 8256 lbs. maple sugar, at 7 cts.; 6450 gals. molasses, at $37\frac{1}{2}$ cts. What is the amount of cash requisite to balance the account on July 13?

16. S. N. Kelly bought of H. Hamel and Co., Prescott, Feb. 3, 1893, 18 yds. cambric, at 14 cts.; 60 yds. calico, at 42 cts.; 39 yds. cassimere, at \$3.75; March 10, 37 yds. cotton, at 35 c.s.; 6 yds. velvet, at \$4.70; May 2, 30 yds. linen, at \$2.65; May 4, 24 yds. merino, at 75 cts. S. N. Kelly's credits are; April 1, 50 lbs. coffee, at 25 cts.; April 9, 7 cords of maple, at \$3.50; May 20, draft on Halifax, \$78; June 25, 1 gal. oil, \$1.50. What balance was due Hamel & Co., June 26, 1893?

17. B. C. Willis, bought of D. & J. Sadlier & Co., publishers, Toronto, Aug. 4, 1893, 75 Mental Arithmetics, at 15 cts.; 50 Commercial Arithmetics, at 37 cts.; 2 doz. Advanced Readers, at \$4.50; Aug. 12, 60 Grammars, at 50 cts.; 36 Compendiums of History, at 72 cts.; Sept 1, 30 Primary Algebras, at 35 cts.; Sept. 1, credited by 50 Commercial Arithmetics, 37 cts. What balance was due D. & J. S. & Co., Sept. 2?

Tables of Measures.

Canadian Money.

10 mills	make	1 cent,	.....	marked	ct.
100 cents	"	1 dollar,	.....	"	\$.

United States Money.

10 mills	make	1 cent,	.....	marked	ct.
10 cents	"	1 dime,	.....	"	d.
10 dimes	"	1 dollar,	.....	"	\$.
10 dollars	"	1 eagle,	.....	"	E.

English or Sterling Money.

4 farthings,	far.,	make	1 penny,	marked	d.
12 pence	"	"	1 shilling,	"	s.
20 shillings	"	"	1 pound,	"	£.
21 shillings	"	"	1 guinea.	"	

Avoirdupois Weight.

Avoirdupois Weight is used to weigh all common goods, such as groceries, hay, grain, and all metals.

The denominations of Avoirdupois Weight are tons, hundred-weights, pounds, ounces, and drams.

16 drams, dr.,	make	1 ounce,	marked	oz.
16 ounces	"	1 pound,	"	lb.
100 pounds	"	1 hundredweight,	"	cwt.
2000 pounds	"	1 ton,	"	T.

The pound Avoirdupois contains 7,000 grains.

Measure of Capacity.

Measure of Capacity is used for measuring all liquids generally, and such articles as grain, fruit, roots, salt, lime, etc.

4 gills, gi.,	make	1 pint,	marked	pt.
2 pints	"	1 quart,	"	qt.
4 quarts	"	1 gallon,	"	gal.
2 gallons	"	1 peck,	"	pk.
4 pecks	"	1 bushel,	"	bus.
3½ gallons	"	1 barrel,	"	bbL.
63 gallons	"	1 hogshead	"	hgd.

The peck and bushel are used only in measuring dry articles, as grain and fruit.

Long Measure.

Long Measure is used for measuring length without regard to breadth or depth.

Its denominations are circles, degrees, leagues, miles, furlongs, rods, poles or perches, yards, feet, and inches.

12 inches	make	1 foot,	marked.	ft.
3 feet	"	1 yard,	"	yd.
5½ yards, or 16½ feet	"	1 rod, pole, or perch,	"	rd.
40 rods	"	1 furlong,	"	fur.
8 furlongs	"	1 mile,	"	m.
3 miles	"	1 league,	"	lea.
69½ statute miles	"	1 degree,	"	deg.
60 geographical miles	"	1 degree,	"	deg.
360 degrees	"	1 circle,	"	cir.
1760 yards, or 5280 feet make one mile.				
4 inches make one hand for measuring horses.				

Square Measure.

This measure is used for measuring all kinds of surfaces, such as land, boards, plastering, and everything else in which length and breadth only are considered.

Its denominations are square miles, acres, roods, square rods or poles, square yards, square feet, and square inches.

144 square inches	make	1 square foot,	marked	sq. ft.
9 square feet	"	1 square yard,	"	sq. yd.
30½ square yards	"	1 sq. rod or pole,	"	P.
40 sq. rods or poles	"	1 rood,	"	R.
4 roods	"	1 acre,	"	A.
640 acres	"	1 square mile,	"	sq. M.

Solid or Cubic Measure.

This is used for measuring solids, that is, things that have three dimensions, viz. : length, breadth, and depth or thickness ; as wood, timber, stone, masonry, etc.

1728 cubic inches, c. in.	make	1 cubic foot,	marked	cu. ft.
27 cubic feet	"	1 cubic yard,	"	cu. yd.
40 cubic feet	"	1 ton,	"	T.
16 cubic feet	"	1 cord foot,	"	cd. . ft
8 cord feet or 128 cubic ft.	"	1 cord of wood,	"	C.

Circular Measure.

Circular measure is applied to the divisions of the circle, and is used in reckoning latitude and longitude and the motion of the heavenly bodies. It is often called Angular Measure, and is chiefly used by astronomers, navigators, and surveyors. Its denominations are circles, signs, degrees, minutes, and seconds.

60 seconds, "	make	1 minute, marked	'.
60 minutes	"	1 degree,	" °.
30 degrees	"	1 sign,	" s.
12 signs, or 360°,	"	1 circle,	" c.

Time.

This is reckoned by centuries, years, months, weeks, days, hours, minutes, and seconds.

60 seconds, sec.	make	1 minute, marked	m.
60 minutes	"	1 hour,	" h.
24 hours	"	1 day,	" d.
7 days	"	1 week,	" w.
365 days	"	1 year,	" Y.
12 months	"	1 year,	" Y.
100 years	"	1 century,	" C.

The days in each month are often expressed thus :—
 Thirty days hath September, April, June, and November;
 February hath twenty-eight, and thirty-one the others rate,
 Except in leap-year, happening once in four,
 When we give to February one day more.

Books and Paper.

24 sheets of paper	make	1 quire.
20 quires	"	" 1 ream.

Miscellaneous Table.

12 units, or things,	make	1 dozen.
12 dozen	"	1 gross.
12 gross, or 144 doz.,	"	1 great gross.
20 things	"	1 score.
100 pounds	"	1 quintal of fish.
196 pounds	"	1 barrel of flour.
200 pounds	"	1 barrel of pork.
18 inches	"	1 cubit.
34 lbs.	"	1 bushel of oats.
48 lbs.	"	1 do. of Juckwheat or barley.
56 lbs.	"	1 do. of Indian corn or rye.
60 lbs.	"	1 do. of wheat.

Exercises in Reduction**Exercise LXXXVIII.**

(DESCENDING.)

1. In \$3475 how many cents? how many mills?
how many dimes?
2. In £25 7s. 8d. how many pence?
3. In £42 3s. 8¼d. how many farthings?
4. In £75 10s. how many shillings?
5. In 25 tons 253 lbs. how many pounds?
6. How many inches in 9 yds. 2 ft. 11 in.?
7. How many rods in 4 miles 7 fur. 35 rods?
8. How many cubic inches in 75 cubic feet?
9. In 6 days 4 hours 20 minutes how many
minutes?
10. Reduce 15 bus. 2 pks. 3 qts. to pints.
11. Reduce 22 acres 130 sq. rd. to square rods.
12. Reduce 6 c. 4 c. ft. 8 cu. ft. to cubic inches.
13. Reduce 3 years 6 mos. to hours.
14. Reduce 2 tons 76 lbs. to pounds.
15. Change 25 sq. yds. 11 sq. ft. to square inches.
16. Change 23 bus. 3 pks. to pints.
17. How many hours were there in February and
March, 1893?
18. How many sheets in 3 reams 15 quires?
19. Reduce 15° to seconds.
20. How many single things in three score and ten?
21. How many seconds in 25° 29' 30"?
22. How many cubic feet in 60 cords of wood?
how many cord feet?
23. How many gills in 5 gals. 2 qts. 1 pint?
24. In 256 bus. how many pecks?
25. How many minutes in February in leap year?

Exercise LXXXIX

(ASCENDING.)

26. How many dollars in 4893475 cents? How many eagles?
27. How many pounds in 9867 pence?
28. How many shillings in 786 farthings?
29. How many pounds in 97684 farthings?
30. In 1376 inches how many yards?
31. In 467 feet how many perches?
32. How many cu. yds. in 284960 cu. ins.?
33. How many gallons in 3247 pints?
34. Reduce 1689 quarts to bushels.
35. Reduce 756 gills to quarts.
36. Reduce 10796 oz. to pounds.
37. Reduce 1876 lbs. to tons.
38. How many hours in 29842 seconds?
39. How many degrees in 1000"?
40. In 45680974 seconds how many weeks?
41. Reduce 76983 cu. ft. to cords.
42. In 13137 pints how many hogsheads?
43. Reduce 26500 sq. rd. to acres.
44. How many miles in 52100 rods?
45. How many barrels in 6078 gills?
46. In 317800 inches how many miles?
47. How many gross in 1728?
48. How many score in 6040?
49. In 1734 feet how many rods?
50. How many reams in 11111 sheets of paper?
51. Reduce 29878300 square feet to sq. miles.
52. How many degrees in 78960"?
53. In 78942 hours how many years?
54. How many hands in 64 inches?
55. How many furlongs in 179359 inches?

Exercise XC.—*Miscellaneous.*

- How
56. How many cents in \$7879? how many mills?
 57. How many dollars in 289427 cents? how many dimes? how many eagles?
 58. How many farthings in £75 12s. 6d?
 59. How many pounds in 45044 farthings?
 60. In 76 T. 18 lbs., how many ounces?
 61. How many tons in 2675088 ounces?
 62. How many inches in 25 m. 7 fur. 17 rd. 9 ft. 6 in?
 63. In 2097540 inches how many miles?
 64. In 25000 miles how many inches?
 65. In 48 deg. 17 m. 6 fur. 18 rd. how many feet?
 66. In 18697846 feet how many degrees?
 67. How many sq. ft. in 8 A. 3 R. 13 p. 215 ft.?
 68. In 423789 sq. ft. how many acres?
 69. How many cubic feet in 25 cords of wood? how many cord feet?
 70. How many gills in 63 gallons of wine?
 71. In 12648 gills of wine how many gallons?
 72. How many seconds in 365 days 6 hrs. 24 min.?
 73. What is the price of 15 gross of steel pens at $\frac{1}{2}$ c. a piece?
 74. What is the price of 14 reams of paper at 15c. a quire?
 75. Sara bought 518 lbs. of sugar at 7 cents a lb., Frances bought 25 bbls. of apples at \$1.75 a bbl. How much did each cost? how much did both cost? how much did one cost more than the other?
 76. John Sullivan has agreed to grade a certain railroad at \$5.75 a rod; what will he receive for grading the road, its length being 37 m., 7 fur., 24 rd.?
 77. What is the value of a house lot, containing 40 square rods and 200 square feet at \$1.50 a sq. ft.?
- r?

Exercise XCI.—*Miscellaneous.*

78. How many yards of carpeting, one yard in width, will be required to carpet a room 18 ft. long and 15 ft. wide? What will be the cost at \$1.35 a sq. yd.?

79. In a field 80 rods long and 50 wide, how many square rods? how many acres? What is the cost at \$235.75 an acre?

80. A merchant purchased 9 bales of cloth, each containing 15 pieces, each piece 23 yds., at 8 cents a yard; what was the amount paid?

81. The pendulum of a certain clock vibrates 47 times in a minute; how many times will it vibrate in 175 days and 39 minutes?

82. How many shingles will it take to cover a roof each of whose equal sides is 36 feet long, with rafters 16 feet in length, supposing one shingle to cover 27 inches?

83. How many times will the large wheels of an engine turn in going from Toronto to Montreal, a distance of 333 miles, supposing the wheels to be 12 feet 6 inches in circumference?

84. What is the price of 48962 inches of tape at $1\frac{1}{2}$ c. a yard?

85. A gentleman purchased a house lot that was 25 rods long and 16 rods wide for \$100000, and sold the same at \$1.25 a sq. ft.; did he gain or lose, and how much?

86. Bought 1 T. 186 lbs. sugar at 7 cents a lb.; how much did it cost?

87. A grocer bought 4 bbls. of flour at \$5.75 a bbl., and sold it at 4 cents a lb.; how much did he gain on the whole?

88. In a pile of wood, 26 feet long, 7 feet high, and four feet wide, how many cu. ft.? how many cord feet? how many cords?

89. How many square rods in a field 75 rods long and 65 rods wide? how many acres?

Exercise XCII.—*Miscellaneous.*

90. What will five miles of telegraph cable cost at 12 cents a foot?
91. What is the age of a man at fourscore and ten years old?
92. How much will a load of hay weighing 2670 lb. cost at \$9 a ton?
93. What is the cost of a piece of timber, 35 feet long, 2 feet wide, and one foot and a half thick, at 5 cents a cubic foot?
94. A pile of wood is 18 feet long, 8 feet high, and 4 feet wide; how much is it worth at \$5.50 a cord?
95. What is the value of a city lot, 50 feet wide and 150 feet long, at 10 cents a square foot?
96. A grocer bought 6 bbls. of cider, at \$2 a bbl., and retailed it at 15 cents a gal.; what was his gain?
97. For 5 cents a pint, how much syrup can be bought for \$6.37?
98. How many score in 150 gross?
99. If a man walk 4 miles an hour, and 12 hours a day; how many miles can he walk in 24 days?
100. What is the cost of 2 bus. 2 pk. and 3 qt. of oats at 3 cents a quart?
101. If 1 bus. of wheat make 45 lbs. of flour, how much flour will 600 bus. make? how many bbls.?
102. How much will it cost to dig a cellar 40ft. long, 18 ft. wide. and 8 ft. deep, at one cent and a half a cubic foot?
103. How many boxes, each containing 15 lbs. can be filled from a hhd. of sugar containing 900 lbs.?
104. If a man earn \$35 a month, how much will he earn in 6 years?
105. What is the cost of 6 bales of cloth, each bale containing 18 pieces, and each piece measuring 52 yds., at \$1.65 a yd.?

Exercises in Compound Numbers.

Exercise XCIII.

Addition of Compound Numbers is the method of finding the sum of two or more denominate numbers of the same kind.

English Money.

(1)			(2)			(3)		
£	s.	d.	£	s.	d.	£	s.	d.
5	13	6½	8	12	6½	12	14	6¾
8	17	9½	6	19	10½	10	19	11½
3	8	4¾	4	0	7½	65	12	9½
9	11	8¾	10	15	2¾	40	3	5½

Avoirdupois Weight.

(4)				(5)				(6)			
T.	lb.	oz.	dr.	T.	lb.	oz.	dr.	T.	lb.	oz.	dr.
82	18	15	13	15	18	10	12	40	17	12	13
15	12	14	10	14	12	9	8	25	20	10	8
40	14	9	11	46	9	14	13	35	25	11	10
15	16	10	12	15	0	6	10	13	19	14	7
65	13	7	8	12	8	11	9	15	26	15	9

Long Measure.

(7)						(8)					
deg.	m.	fur.	rd.	ft.	in.	m.	fur.	rd.	yd.	ft.	in.
20	19	7	15	11	1	12	7	35	5	2	11
59	47	6	39	10	11	13	6	15	3	1	10
78	32	5	14	9	9	16	1	17	1	2	5
17	59	7	36	16	10	13	5	14	2	1	9
28	56	1	30	16	1	17	7	36	5	2	7

Square Measure.

(9)					(10)					
A.	R.	P.	ft.	in.	A.	R.	P.	yd.	ft.	in.
48	3	30	272	143	43	1	15	30	8	17
88	3	14	250	116	16	3	39	19	7	141
24	2	31	167	135	47	1	16	27	5	79
67	1	17	176	131	38	3	17	18	8	17
49	3	31	69	117	15	1	32	11	1	117

Exercise XCIV.

Solid Measure.

(11)			(12)			(13)		
cu.yd.	cu.ft.	cu.in.	cords	c. ft.	c. in.	cords	c.ft.	c.in.
85	24	1371	24	116	1169	100	97	1004
61	17	1711	67	113	1711	87	10	969
47	16	1666	96	127	968	65	37	1272
71	18	1711	19	98	1376	124	19	1367
47	19	1617	14	37	1414	97	127	1060

Measure of Capacity.

(14)				(15)				(16)			
hhd.	gal.	qt.	pt	bus.	pk.	qt.	pt.	bus.	pk.	qt.	pt.
3	40	3	1	35	3	7	1	17	1	1	1
2	35	1	1	16	3	6	1	31	3	3	0
1	45	2	0	30	1	5	0	14	3	1	1 $\frac{1}{2}$
3	37	0	1	17	2	2	1	17	1	0	1
2	55	3	1	14	1	4	1	10	2	3	0

Time Measure.

(17)					(18)				
Y.	d.	h.	m.	sec.	Y.	d.	h.	m.	sec.
67	300	23	59	17	25	6	23	15	17
37	169	15	17	38	51	5	15	27	18
29	364	23	42	17	16	3	21	57	28
18	178	16	38	47	18	5	19	39	49
49	317	20	52	57	36	4	15	18	57

Circular Measure.

(19)				(20)			
S.	°	'	"	S.	°	'	"
11	28	56	58	9	07	23	18
10	21	51	37	7	09	19	51
8	13	39	57	8	18	57	45
7	19	40	34	4	17	16	39
3	17	47	48	7	27	38	48

Exercise XCV.

21. Add together 17 tons 14 lb. 12 oz., 13 tons 19 lb. 11 oz., 53 tons 17 lb. 8 oz., 27 tons 18 lb. 9 oz., and 16 tons 0 lb. 13 oz.

22. Sold 3 loads of hay, the first weighed 2 T. 17 lb., the second 3 T. 27 lb., and the third 1 T. 11 lb.; what did they all weigh?

23. What is the sum of the following distances: 16 m. 7 fur. 18 rd. 14 ft. 11 in., 19 m. 1 fur. 13 rd. 16 ft. 9 in., 97 m. 3 fur. 27 rd. 13 ft. 3 in., and 47 m. 5 fur. 37 rd. 13 ft. 10 in.

24. Add together 17 bus. 1 pk. 7 qt. 1 pt., 18 bus. 3 pk. 2 qt., 19 bus. 1 pk. 3 qt. 1 pt., and 51 bus. 3 pk. 0 qt. 1 pt.

25. A gentleman: has 3 farms the first contains 169 A. 3 R. 15 p. 227 ft., the second 187 A. 1 R. 15 p. 165 ft., and the third 217 A. 2 R. 28 p. 165 ft.; how much in the 3 farms?

26. There are 3 piles of wood: the first contains 18 cords 116 ft. 1000 in., the second 17 cords 111 ft. 1600 in., and the third 21 cords 109 ft. 1716 in.; how much in all?

27. James Thompson has 4 casks of molasses: the first contains 167 gal. 3 qt. 1 pt., the second 186 gal. 1 qt. 1 pt., the third 108 gal. 2 qt. 1 pt., and the fourth 123 gal. 3 qt. 0 pt.; how much in all?

28. John is 13 Y. 4 mo. 13 d. old, Samuel is 12 Y. 11 mo. 23 d., and Daniel is 18 Y. 9 mo. 29 d.; what is the sum of their united ages?

29. Add together 18 Y. 345 d. 13 h. 37 m. 15 sec., 87 Y. 169 d. 12 h. 16 m. 28 sec., 316 Y. 144 d. 20 h. 53 m. 18 sec., and 13 Y. 360 d. 21 h. 57 m. 15 sec.

30. Find the total of the following: 2004 bus. 3 pk. 1 gal. 2 qt. 1 pt., 104 bus. 1 qt. 1 pt., 4 bus. 1 pk. 1 gal. 1 pt., 1010 bus. 1 pk. 1 gal. 1 pt., and 453 bus. 1 gal. 1 pt.

Exercise XCVI.

Subtraction of Compound Numbers is the method of finding the difference between two denominate numbers when one or both are compound.

English Money.

(1)			(2)			(3)		
£	s.	d.	£	s.	d.	£	s.	d.
68	11	5½	763	16	10½	100	10	0½
41	13	3¾	714	17	11¾	50	19	11¾

Avoirdupois Weight.

(4)				(5)				(6)			
T.	lb.	oz.	dr.	T.	lb.	oz.	dr.	T.	lb.	oz.	dr.
117	5	0	14	11	1	1	13	30	0	0	10
19	17	1	15	9	1	13	15	99	0	0	15

Solid Measure.

(7)			(8)		
T.	ft.	in.	C.	ft.	in.
171	30	1000	571	18	1234
98	37	1234	199	19	1279

Measure of Capacity.

(9)				(10)				(11)			
gal.	qt.	pt.	gi.	gal.	qt.	pt.	gi.	gal.	qt.	pt.	gi.
87	2	0	1	108	0	1	2	1204	2	1	2
68	3	1	3	96	3	0	3	109	3	0	3

Time Measure.

(12)					(13)				
Y.	d.	h.	m.	s.	Y.	d.	h.	m.	s.
376	15	13	17	5	37	2	19	40	20
137	243	19	54	27	14	5	10	54	43

Circular Measure.

(14)				(15)			
S.	deg.	m.	s.	S.	°	'	"
11	9	13	17	10	23	37	39
8	27	12	36	8	29	41	48

Exercise XCVII.

16. What is the time from March 21st, 1883, to January 6th, 1893?

17. A merchant owes a debt in London, amounting to £7671; what remains due after paying £1728 17s. 6d?

18. From 58 T. take 12 T. 19 lbs. 14 oz.

19. What remains after taking 3 m. 4 fur. 18 rd. 13 ft. and 8 in. from 20 miles?

20. Subtract 18 A. 1 R. 17 P. 200 ft. 100 in. from 144 A. 3 R.

21. From 18 C. of wood take 3 C. 100 ft. 1000 c. in.

22. From 17 T. take 5 T. 18 ft. 765 in.

23. From 169 gal. take 76 gal. 3 qt. 1 pt.

24. From 83 yrs. take 47 yrs. 10 mos. 27 d. 18 h. 50 min. 14 sec.

25. Anna was born on the 7th of November, 1867; Sara was born on the 12th of July, 1880. How much older is Anna than Sara?

26. Frances was 15 years of age on the 27th of May, 1893; when was she born?

27. Shakespeare was born on the 23rd of April, 1564; Milton 44 years 7 months 16 days later; when was Milton born?

28. What is the difference of time between October 16th, 1892, and August 9th, 1894?

Exercise XCVIII.

Multiplication of Compound Numbers is the method of finding the sum of any compound number when repeated a given number of times.

(1)

£	s.	d.
15	5	8½
		2
<hr/>		

(2)

£	s.	d.
19	11	7½
		3
<hr/>		

(3)

£	s.	d.
25	17	11¾
		5
<hr/>		

(4)

cwt.	lb.	oz.
28	17	10
		6
<hr/>		

(5)

T.	cwt.	lb.
24	15	12
		7
<hr/>		

(6)

cwt.	lb.	oz.
29	8	15
		8
<hr/>		

(7)

lb.	oz.	dr.
25	14	13
		9
<hr/>		

(8)

m.	fur.	rd.	ft.
87	7	14	13
			6
<hr/>			

(9)

deg.	m.	fur.	rd.
28	12	6	18
			8
<hr/>			

(10)

rd.	yd.	ft.	in.
33	3	2	9
			9
<hr/>			

(11)

m.	yd.	ft.
175	1327	2
		11
<hr/>		

(12)

fur.	rd.	ft.	in.
29	31	16	11
			10
<hr/>			

(13)

cu. yd.	ft.	in.
763	21	1123
		7
<hr/>		

(14)

cu. yd.	ft.	in.
1026	19	1476
		9
<hr/>		

Exercise XCIX.

15. What is the cost of 17 yds. of cloth at 18s. 9d. per yd.?

16. If a man travel 12 m. 3 fur. 29 yds. in one day, how far will he travel in 9 days?

17. If 1 acre produce 2 T. 13 cwt. 19 lbs. of hay, what will 8 acres produce?

18. If a family consume 39 gal. 3 qt. 1 pt. of molasses in one month, what quantity will suffice for one year?

19. If \$100 will buy 2 A. 3 R. 15 P. 30 yds. 8 ft. 100 in. of wild land, how much can be bought for \$1200?

20. Joseph Smith cuts 2 C. 97 ft. of wood in one day; how much will he cut in 9 days?

(BY FACTORS.)

21. What is the cost of 24 yds. of broadcloth at £2 7s. 11d. per yard?

22. Find the cost of 360 tons of iron at £2 7s. 11d. per ton.

23. If a man travel 3 m. 7 fur. 18 R. in one day; how far would he travel in 30 days?

24. If a load of hay weigh 2 T. 18 lb., what would be the weight of 84 similar loads?

25. How much can I buy for \$62, if for \$1, I can buy 17 lb. 10 oz. 13 dr.?

26. How far can a man travel in 38 days, if he travels 17 m. 3 fur. 19 rd. 3 yds. 2 ft. 7 in. in one day?

27. If one acre will produce 27 bus. 3 pk. 6 qt. 1 pt. of corn, what will 98 acres produce?

28. One ton of iron will buy 13 A. 3 R. 14 P. 18 yds. 7 ft. 76 in. of land; how many acres will 18 T. buy?

29. If a ton of copper ore will purchase 17 T. 14 cwt. 3 qr. 18 lb. 14 oz. of iron ore; how much can be purchased for 450 tons?

Exercise C.

Division of Compound Numbers is the method of dividing a compound number into any given number of equal parts.

(1)

	£	s.	d.
2)	<u>12</u>	<u>13</u>	<u>4</u>

(2)

	£	s.	d.
3)	<u>68</u>	<u>14</u>	<u>9</u>

(3)

	£	s.	d.
5)	<u>127</u>	<u>9</u>	<u>7</u>

(4)

	£	s.	d.
6)	<u>116</u>	<u>14</u>	<u>4½</u>

(5)

	cwt.	lb.	oz.
6)	<u>113</u>	<u>5</u>	<u>12</u>

(6)

	T.	cwt.	lb.
7)	<u>103</u>	<u>11</u>	<u>9</u>

(7)

	lb.	oz.	dr.
9)	<u>143</u>	<u>5</u>	<u>5</u>

(8)

	m.	fur.	rd.	ft.
6)	<u>587</u>	<u>4</u>	<u>8</u>	<u>12</u>

(9)

	fur.	rd.	ft.	in.
10)	<u>98</u>	<u>0</u>	<u>4</u>	<u>2</u>

(10)

	deg.	m.	fur.	rd.
8)	<u>145</u>	<u>33</u>	<u>2</u>	<u>10½</u>

(11)

	rd.	yd.	ft.	in.
9)	<u>213</u>	<u>2</u>	<u>0</u>	<u>9</u>

(12)

	m.	fur.	yd.
5)	<u>100</u>	<u>6</u>	<u>200</u>

(13)

	bus.	pk.	qt.
2)	<u>25</u>	<u>3</u>	<u>1</u>

(14)

	bus.	pk.	gal.	qt.
4)	<u>113</u>	<u>1</u>	<u>1</u>	<u>3</u>

(15)

	C.	ft.
2)	<u>759</u>	<u>72</u>

(16)

	A.	R.	P.	yd.	ft.	in.
3)	<u>139</u>	<u>1</u>	<u>17</u>	<u>18</u>	<u>1</u>	<u>30</u>

Exercise C1.

17. What is the cost of 1 yd. of cloth, when 7 yd. can be bought for £6 11s. 3d. ?

18. If a man travel 112 m. 1 fur. 21 rd. in 9 days, how far will he travel in 1 day ?

19. If 8 acres produce 21 T. 5 cwt. 24 lb. of hay, what will 1 acre produce ?

20. Samuel Johnson bought 7 loads of timber measuring 55 T. 19 ft. ; what quantity in each load ?

21. When 8 acres of land produce 917 bus. 3 pk. 4 qt. of grain, what will 1 acre produce ?

(BY FACTORS.)

22. When 24 yds. of broadcloth are sold for £57 10s., what is the price of 1 yd. ?

23. If 360 lb. of iron cost £6409 10s. od., what is the cost of 1 ton ?

24. If a man travel 117 m. 7 fur. 20 rd. in 30 days, how far will he travel in 1 day ?

25. If 84 loads of hay weigh 201 T. 6 cwt. 12 lb., what will 1 load weigh ?

26. When 72 ladies require 567 yards for their dresses, how many yards will 1 lady require ?

27. When 132 sailors require 470 yd. of cloth to make their garments, how many yards will be required for 1 sailor ?

28. If 25 cwt. of iron cost £171 1s. 3d., what will 1 cwt. cost ?

29. If \$62 will buy 1095 lb. 14 oz. of beef, how much may be obtained for \$1 ?

30. What will one acre produce, if 98 acres produce 2739 bus. 1 pk. 5 qt. of grain ?

31. When 19 tons of iron will buy 262 A. 3 R. 37 P. 25 yd. 1 ft. 40 in. of land, how much may be obtained for 1 ton ?

Exercise CII.

1. A man bought a coach for £25 10s., a horse for £24 6s. 8d., and a harness for £6 13s. 4d. ; what was the whole cost?
2. A note, dated Dec. 22nd, 1890, was paid Nov. 9th, 1892; how long was it from its date to its payment?
3. If a man travel 20 m. 4 fur. 20 rd. in a day; how far will he go in 25 days? (Do by factors.)
4. If a steamboat run 174 m. 26 rd. in 14 hours, how far does she run in 1 hour?
5. A farm containing 322 A. 90 P. is to be divided equally among 13 persons; how much will each have?
6. A cartman drew 38 C. 5 c.ft. 6 cu.ft. of wood, at 30 loads; how much did he average per load?
7. If 24 barrels of flour cost £98 16s., how much will 1 barrel cost?
8. If a vessel sail 136° 16' 12" in 27 days, how far does she sail on an average per day?
9. A merchant bought a piece of cloth containing 68 yards for \$51.00, he sold it again at \$1.29 per yard; how much did he gain?
10. How many pounds of coffee can you buy for \$15.01, at 19 cents a pound?
11. An auctioneer sold 30 bags of cotton, each containing 408 lbs. at 14 cents 6 mills a pound; what is the value of the whole?
12. If a man walk 3 m. 5 fur. 36 rds. in an hour, how far can he walk in 7 days of 12 hours each?
13. If one man receives \$225.75 more than another, and both receive \$1315.90; what sum did each obtain?
14. A tailor bought 24 yards of one kind of cloth for \$78 and 36 yards of another kind for \$112.50; what was the difference in the price per yard?

Exercise CIII.

15. How many barrels of flour may be bought for \$128.25, at \$6.75 per barrel?

16. Suppose a stage goes 4 times as fast as a pedestrian, and a railroad car 5 times as fast as the stage, and that they all go 1000 miles; how far does each travel?

17. There is a vessel containing 1 hhd. 6 gal. 3 qt. of wine, it has a pipe which discharges 23 gal. 1 qt. in an hour; how many hours will it take to empty the vessel?

18. If a man travel 41 m. 4 fur. in 4 hours, how far will he travel in 1 hour? how far in 11 hours?

19. An Englishman paid £12 2s. 7¼d. for 18 yards of cloth; what did he pay for 1 yard? what should he pay for 54 yards?

20. What quantity of rye, at 92 cents a bushel, may be bartered for 46 bushels of oats, at 72 cents a bushel?

21. A farmer raised 200 bus. 2 pk. of barley, 175 bus. 3 pk. of corn, 320 bus. 1 pk. of oats, and 225 bus. 2 pk. of rye; what was the whole quantity of grain raised?

22. A person having bought 325 A. 80 P. of land, sold 165 A. 65 P. of it; how much had he remaining?

23. If a railroad car run 148 miles 160 rd. in 8 hours, what is the average rate of speed per hour?

24. A man purchasing 2 A. 140 P. of land, reserves ½ an acre for his own use, and divides the remainder into 4 equal lots; how much does each lot contain? ,

25. If from a piece of land containing 5 A. 120 P. 2 A. 76 P. be taken; how many square rods will remain?

26. Divide a tract of land containing 1299500 square rods into 25 farms of equal area; how much will there be in each?

Exercise CIV.

27. A merchant buys 3 hogsheads of molasses at 22 cents a gallon, and sells it at 30 cents; what does he gain on the whole?

28. How many steps of 30 inches each must a person take in walking 12 miles?

29. If a man buy 10 bushels of chestnuts, at \$3 a bushel, and sell them at ten cents a pint, what is his whole gain?

30. If 8 horses eat 12 bus. 3 pk. of oats in 3 days, how many bushels will 20 horses eat in the same time?

31. How many cubic feet in a room 18 feet long, 16 feet wide, and 10 feet high?

32. A person wishes to ship 720 bushels of potatoes in barrels, which shall hold 3 bus. 3 pk. each; how many barrels must he use?

33. How many rods of fence will enclose a farm 1 mile square?

34. If granite weigh 175 pounds a cubic foot, what is the weight of a cubic yard?

35. A stationer bought 36 gross 7 dozen lead-pencils for \$184.38; how much was that apiece? What did he gain in all, if he sold them at 6 cents apiece?

36. How many yards of ribbon can be bought for 4 dollars, at 8 cents a yard?

37. How many times are 85 cents, multiplied by 4, contained in \$340 divided by 5?

38. Multiply \$385.20 by 4, and divide the product by 5.

39. If a man is 3 days 1 hour 12 minutes 2 seconds traveling 1 degree, how long would it take him to travel around the earth?

40. A grocer bought 12 hundredweight of sugar for \$87.50, and sold it at 9 cents 5 mills per pound; what was the gain?

Exercise CV.

Cancellation is the process of rejecting equal factors from numbers sustaining to each other the relation of dividend and divisor.

1. What is the quotient of 48 divided by 24?

$$\begin{array}{c} \text{OPERATION.} \\ 48 \quad 3 \times 8 \times 2 \\ \hline 24 \quad 3 \times 8 \end{array} = 2, \text{ Ans.}$$

2. Divide the product of $12 \times 8 \times 6$ by $8 \times 4 \times 3$.

$$\begin{array}{c} \text{OPERATION.} \\ \overset{3}{12} \times 8 \times \overset{2}{6} \quad 3 \times 2 \\ \hline 8 \times 4 \times 3 \quad 1 \end{array} = 6, \text{ Ans.}$$

3. Divide the product of $25 \times 18 \times 4 \times 3$ by $7 \times 6 \times 5 \times 3$.

$$\begin{array}{c} \text{OPERATION.} \\ \overset{5}{25} \times \overset{3}{18} \times 4 \times 3 \quad 5 \times 3 \times 4 \quad 60 \\ \hline 7 \times 6 \times 5 \times 3 \quad 7 \end{array} = \frac{60}{7} = 8\frac{4}{7}, \text{ Ans.}$$

Find the value of :

- (4) $36 \times 10 \times 7 \div$ by the product of $14 \times 5 \times 9$.
- (5) $21 \times 8 \times 40 \times 3 \div$ by the product of $12 \times 7 \times 20$.
- (6) $64 \times 18 \times 9 \div$ by the product of $30 \times 27 \times 24$.
- (7) $120 \times 44 \times 6 \div$ by the product of $60 \times 11 \times 8$.
- (8) $16 \times 24 \times 48 \div$ by the product of $32 \times 36 \times 38$.
- (9) $12 \times 7 \times 5 \div$ by the product of $2 \times 4 \times 3$.
- (10) $16 \times 5 \times 10 \times 18 \div$ by the product of $8 \times 6 \times 2 \times 12$.
- (11) $84 \times 12 \times 18 \div$ by the product of $21 \times 24 \times 9$.
- (12) $72 \times 18 \times 16 \div$ by the product of $24 \times 16 \times 9$.
- (13) $22 \times 9 \times 12 \times 5 \div$ by the product of $3 \times 11 \times 6 \times 4$.
- (14) $76 \times 34 \times 96 \div$ by the product of $17 \times 51 \times 32$.
- (15) $25 \times 7 \times 14 \times 36 \div$ by the product of $4 \times 10 \times 21 \times 54$.
- (16) $184 \times 145 \times 80 \div$ by the product of $23 \times 29 \times 60$.
- (17) $28 \times 27 \times 21 \times 15 \times 18 \div$ by the product of $7 \times 54 \times 7 \times 3 \times 9$.
- (18) $12 \times 5 \times 183 \times 18 \times 70 \div$ by the product of $3 \times 14 \times 9 \times 5 \times 20 \times 6$.
- (19) $213 \times 84 \times 190 \times 264 \div$ by the product of $30 \times 56 \times 36$.

Exercise CVI.

20. How many tons of hay at \$9 a ton, must be given for 27 cords of wood, at \$4 a cord?

21. How many bushels of corn, worth 60 cents a bushel, must be given for 25 bushels of rye, worth 90 cents a bushel?

22. How many peaches, worth 2 cents each, must be given for 48 oranges, at 3 cents each?

23. How many days' work, at 75 cents a day, will pay for 30 pounds of coffee, at 15 cents a pound?

24. How many suits of clothes, at \$18 a suit, can be made from 5 pieces of cloth, each piece containing 24 yards, at \$3 a yard?

25. A grocer bought 120 pounds of cheese, at 9 cents a pound, and paid in molasses, at 45 cents a gallon; how many gallons of molasses paid for the cheese?

26. Sold 8 firkins of butter, each weighing 56 pounds, at 15 cents a pound, and received in payment 3 boxes of tea, each containing 40 pounds; what was the tea worth a pound?

27. A man took 6 loads of apples to market, each load containing 14 barrels, and each barrel 3 bushels. He sold them at 50 cents a bushel, and received in payment 9 barrels of sugar, each weighing 210 pounds; what was the sugar worth a pound?

28. A grocer sold 12 boxes of soap, each containing 51 pounds, at 10 cents a pound; he received in payment a certain number of barrels of potatoes, each containing 3 bushels, at 30 cents a bushel; how many barrels did he receive?

29. A man sold 4 loads of barley, each load containing 60 bushels, at 70 cents a bushel, and received in payment 2 pieces of cloth, each piece containing 35 yards; what was the cloth worth a yard?

Exercise CVII.

1. Add perpendicularly and horizontally, and find the total for the six weeks.

Weeks.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
1st.	\$95·65	\$89·24	\$59·79	\$78·04	\$59·37	\$98·16
2nd.	71·58	65·41	67·24	62·49	67·02	51·42
3rd.	58·47	57·99	50·60	71·68	82·91	76·89
4th.	69·29	80·07	91·87	93·74	63·36	90·21
5th.	45·81	93·56	82·54	57·96	72·12	67·96
6th.	63·42	77·68	79·18	86·60	87·31	82·75

2. Willie gained 12 merit marks on Monday, 16 on Tuesday, 16 on Wednesday, 14 on Thursday and 12 on Friday; what was the average number of marks received per day?

3. Sales during the week: find the average for one day—Monday \$263, Tuesday \$374, Wednesday \$104, Thursday \$916, Friday \$569, Saturday \$1216.

4. During 6 days a boy worked respectively 10 h., 8 h., 9 h., 7 h., 9 h., and 8 h.; what is the total number of hours and the average time he worked?

5. The suits of two boys cost \$19, one suit cost \$4 more than the other; what was the cost of each?

6. Two men earned \$476, the elder earning \$150 more than the other; how much did each earn?

7. A merchant gave \$1000 to two charitable institutions, giving to the one \$250 more than to the other; what amount did he give to each?

8. Divide 120 marbles among John, Joseph and James, giving John 5 marbles more than Joseph, and Joseph 11 marbles more than James.

9. If \$80 buy 4 A. 3 R. 20 sq. yd. 3 sq. ft. of land, how much will \$2800 buy?

Exercise CVIII.

10. What number must be subtracted from 1000000 so that it may be divided by 858 without leaving a remainder?

11. What number must be added to 308090 so that it may be divided exactly by 459?

12. Multiply the difference between 876042 and 834260 by 176.

13. What is the difference between $3931476 \div 556$ and 14×875 ?

14. A farmer sold a horse for \$140, a cow for \$25, and 28 sheep at \$2.50 each; how much more did he receive for the horse than for the cow and sheep?

15. A young lady, having \$75, went out shopping, and bought 14 yards of silk for a dress, at \$1.50 a yd. a shawl for \$15.75, a bonnet for \$8, a pair of gloves for \$1.25, and a pair of shoes for \$1.75; how much money had she remaining?

16. A grocer bought 12 firkins of butter, each containing 56 pounds at 14c. a pound; he afterwards sold 5 firkins at 16c. a pound, and 7 firkins at 18c. a pound; what was his whole gain?

17. A miller sold 256 barrels of flour at \$6.80 a barrel, which was \$475.60 more than the wheat from which it was made cost him; what was the cost of the wheat?

18. An estate, worth \$25640, has demands against it to the amount of \$9376; after these claims are paid, the remainder is to be equally divided among 5 individuals; what will each receive?

19. If 15 tons of hay cost \$311.70, how much will 1 ton cost?

20. How many bushels of wheat, at \$1.12 a bushel, can be bought for \$81.76?

Exercise CIX.

21. If 140 barrels of apples cost \$329, what is the cost per barrel?
22. At \$0.82 per bushel, how many bushels of corn can be bought for \$264?
23. If 25 yards of cloth can be bought for \$125.25, how many yards can be bought for \$751.50?
24. How many cubic yards of earth must be thrown from a cellar 40 ft. long, 30 ft. wide, 6 ft. deep, and what will be the cost of the excavation, at $12\frac{1}{2}$ c. a cubic yard?
25. If 6 pounds of cheese cost three-fourths of a dollar, how much will 10 pounds cost?
26. What will be the cost of lathing and plastering the ceiling of a room 36 ft. long and 27 ft. wide, at 28 c. a square yard?
27. How much land at \$75.50 an acre, must be given in exchange for 360 acres at \$93.75 an acre?
28. How many times can a box, holding 4 bus. 3 pk. 2 qt., be filled from 336 bus. 3 pk. 4 qt.?
29. How many cords of wood in 17 piles, each 11 ft. long, 4 ft. wide, and 6 ft. high?
30. What is the freight on $1244\frac{1}{2}$ pounds from Montreal to Quebec, at 85 c. per 100 lbs.?
31. How many dozen of eggs can be bought for \$9.24, at $10\frac{1}{2}$ c. a dozen?
32. What will 3921 ft. of pine boards cost, at \$17.25 per 1000.
33. Make up in proper bill form: Sold by R. S. Graham, Montreal, to E. Dudley as follows: 1893, Jan. 3, 109 yds. calico, at $18\frac{1}{4}$ c.; Feb. 11, 430 yds. muslin, at $15\frac{1}{2}$ c.; March 2, 36 yds. sheeting, at $23\frac{1}{4}$ c.; May 16, 75 yds. Irish linen, at 42 c.; 44 yds. lace, at $98\frac{3}{4}$ c.

ANSWERS.

ADDITION.

Exercise IX—Page 6.

(58)	37	(70)	99	(82)	84	(93)	90	(104)	137
(59)	47	(71)	125	(83)	90	(94)	75	(105)	158
(60)	56	(72)	75	(84)	90	(95)	123	(106)	154
(61)	38	(73)	79	(85)	188	(96)	81	(107)	121
(62)	68	(74)	68	(86)	72	(97)	76	(108)	171
(63)	58	(75)	77	(87)	90	(98)	113	(109)	161
(64)	68	(76)	119	(88)	80	(99)	103	(110)	125
(65)	77	(77)	149	(89)	120	(100)	164	(111)	146
(66)	98	(78)	101	(90)	171	(101)	183	(112)	164
(67)	88	(79)	83	(91)	75	(102)	138	(113)	146
(68)	66	(80)	104	(92)	74	(103)	175	(114)	173
(69)	89	(81)	87						

Exercise XI.—Page 8.

(136)	845	(153)	1465	(170)	1656	(187)	970	(204)	1619
(137)	733	(154)	1541	(171)	681	(188)	1206	(205)	1613
(138)	852	(155)	1754	(172)	759	(189)	1424	(206)	561
(139)	991	(156)	1125	(173)	1734	(190)	1019	(207)	1291
(140)	786	(157)	1185	(174)	1793	(191)	1703	(208)	823
(141)	662	(158)	1733	(175)	1627	(192)	1561	(209)	736
(142)	487	(159)	873	(176)	1811	(193)	1580	(210)	1555
(143)	821	(160)	1085	(177)	809	(194)	1154	(211)	1414
(144)	724	(161)	1243	(178)	1046	(195)	951	(212)	1374
(145)	436	(162)	1245	(179)	1138	(196)	1829	(213)	1610
(146)	570	(163)	1706	(180)	1165	(197)	1781	(214)	1682
(147)	1119	(164)	1494	(181)	1546	(198)	846	(215)	1089
(148)	1655	(165)	1963	(182)	1220	(199)	1201	(216)	1091
(149)	1072	(166)	780	(183)	1286	(200)	966	(217)	1312
(150)	1618	(167)	1344	(184)	1425	(201)	1426	(218)	1075
(151)	1406	(168)	1119	(185)	1145	(202)	1736	(219)	1213
(152)	1386	(169)	1976	(186)	1231	(203)	1822		

Exercise XIII.—Page 10.

(241) 1.378.407	(260) 1.768.454	(279) 2.001.265
(242) 1.273.632	(261) 2.599.231	(280) 2.564.918
(243) 1.840.995	(262) 1.503.731	(281) 1.518.594
(244) 1.370.515	(263) 997.509	(282) 2.709.796
(245) 905.533	(264) 783.412	(283) 2.588.227
(246) 1.118.858	(265) 1.939.660	(284) 1.813.663
(247) 488.411	(266) 1.521.540	(285) 1.254.504
(248) 1.491.656	(267) 1.622.608	(286) 1.815.500
(249) 1.042.289	(268) 1.766.852	(287) 1.313.249
(250) 1.248.750	(269) 1.026.723	(288) 1.861.557
(251) 829.803	(270) 1.084.080	(289) 753.297
(252) 1.154.072	(271) 1.171.635	(290) 1.124.493
(253) 777.390	(272) 1.339.849	(291) 1.370.482
(354) 533.248	(273) 2.360.923	(292) 791.453
(255) 979.630	(274) 1.354.438	(293) 1.667.875
(256) 1.875.171	(275) 1.388.247	(294) 755.242
(257) 1.760.203	(276) 952.693	(295) 730.979
(258) 1.282.386	(277) 1.710.506	(296) 2.124.319
(259) 1.721.009	(278) 2.538.411	

Exercise XIV.—Page 11.

(297) 1.761.	(298) 7.709.	(299) 1.829.	(300) 9.473.
(301) 10.775.	(302) 6.868.	(303) 6.474.	(304) 7.637.

Exercise XV.—Page 12.

(305) 1.791.768	(318) 1.992.343	(331) 1.342.253
(306) 1.832.382	(319) 2.514.488	(332) 2.407.645
(307) 2.538.301	(320) 1.363.538	(333) 1.281.422
(308) 2.330.213	(321) 1.902.575	(334) 2.204.599
(309) 2.608.312	(322) 2.162.404	(335) 1.846.111
(310) 2.041.334	(323) 2.000.660	(336) 1.609.670
(311) 1.660.020	(324) 2.582.407	(337) 618.780
(312) 2.442.718	(325) 2.707.527	(338) 1.241.026
(313) 2.349.271	(326) 2.505.899	(339) 2.317.595
(314) 2.411.414	(327) 2.133.326	(340) 1.210.681
(315) 2.623.539	(328) 2.142.506	(341) 1.140.272
(316) 2.612.590	(329) 2.139.752	(342) 1.229.479
(317) 2.530.057	(330) 2.151.527	(343) 1.018.106

(344) 1.183.335	(350) 1.355.598	(356) 1.243.132
(345) 2.146.542	(351) 1.732.014	(357) 1.242.308
(346) 1.051.175	(352) 1.463.329	(358) 1.674.496
(347) 2.182.507	(353) 1.954.162	(359) 1.777.765
(348) 1.114.739	(354) 853.417	(360) 1.243.404
(349) 1.429.967	(355) 1.836.769	

Exercise XVI.—Page 13.

(361) 2.773.675.542	(382) 873.724.659
(362) 1.575.485.731	(383) 2.006.392.556
(363) 1.139.295.833	(384) 717.620.129
(364) 1.082.698.353	(385) 961.667.207
(365) 1.310.020.662	(386) 1.506.723.858
(366) 1.997.529.631	(387) 1.749.063.528
(367) 827.630.241	(388) 1.638.499.229
(368) 1.377.519.277	(389) 799.710.204
(369) 1.123.860.401	(390) 1.934.205.251
(370) 1.797.661.704	(391) 1.493.221.057
(371) 1.370.027.643	(392) 2.057.338.596
(372) 1.863.795.700	(393) 1.154.123.109
(373) 2.100.101.109	(394) 1.040.117.625
(374) 1.316.393.285	(395) 952.361.840
(375) 1.721.730.745	(396) 1.836.814.725
(376) 2.222.250.417	(397) 1.712.099.005
(377) 1.600.343.803	(398) 973.064.351
(378) 1.749.499.419	(399) 994.609.052
(379) 1.838.927.354	(400) 2.304.679.339
(380) 2.085.428.112	(401) 2.277.399.987
(381) 2.049.460.646	(402) 772.390.644

Exercise XVII.—Page 14.

(403) 1.467.818	(406) 806.256	(408) 742.976
(404) 415.780	(407) 255.956	(409) 109.444
(405) 73.230		

Exercise XVIII.—Page 15.

(410) 1.734.658.339	(414) 1.753.457.484
(411) 1.599.361.717	(415) 1.317.778.596
(412) 1.145.648.152	(416) 2.015.657.504
(413) 1.646.613.117	(417) 1.216.237.657

- (418) 1.713.530.572
 (419) 1.950.817.935
 (420) 1.344.699.608
 (421) 2.157.737.754
 (422) 545.997.790
 (423) 2.113.110.568
 (424) 1.892.365.012
 (425) 2.563.528.582
 (426) 1.220.298.610
 (427) 1.901.022.134
 (428) 2.022.762.358
 (429) 1.947.324.791
 (430) 1.934.795.262
 (431) 1.240.158.222
 (432) 1.643.093.396
 (433) 2.218.772.577
 (434) 1.809.290.475
 (435) 1.763.538.226
 (436) 2.188.104.157
 (437) 1.547.257.718
 (438) 2.229.459.657
 (439) 930.097.265
 (440) 630.780.998
 (441) 904.621.006
 (442) 996.067.367
 (443) 985.922.600
 (444) 1.065.115.567
 (445) 158.508.014

Exercise XIX.—Page 16.

- (446) 1.008.278.205
 (447) 1.228.822.376
 (448) 1.386.471.414
 (449) 1.468.965.957
 (450) 1.031.610.168
 (451) 1.410.655.463
 (452) 553.831.260
 (453) 2.613.101.970
 (454) 940.316.317
 (455) 1.720.812.503
 (456) 1.294.724.819
 (457) 2.536.784.026
 (458) 1.466.444.056
 (459) 1.250.803.235
 (460) 463.149.905
 (461) 1.236.909.955
 (462) 1.717.079.385
 (463) 2.532.969.255
 (464) 2.348.859.849
 (465) 1.541.823.658
 (466) 1.926.381.640
 (467) 2.081.049.303
 (468) 1.960.804.158
 (469) 2.599.497.782
 (470) 1.403.218.442
 (471) 1.482.114.482
 (472) 1.110.982.272
 (473) 2.151.385.019
 (474) 1.150.719.962
 (475) 1.892.504.040

Exercise XXI.—Page 18.

- (495) 2.347.157.603
 (496) 1.788.822.686
 (497) 2.570.891.023
 (498) 1.770.234.973
 (499) 1.465.427.601
 (500) 1.797.188.766
 (501) 1.895.024.385
 (502) 1.868.015.920
 (503) 991.028.601
 (504) 1.489.655.024
 (505) 1.340.390.731
 (506) 776.281.935

(507) 995.515.849	(519) 2.080.918.888
(508) 1.461.559.169	(520) 2.281.219.585
(509) 840.504.337	(521) 1.841.271.653
(510) 1.276.570.657	(522) 1.091.237.909
(511) 1.443.509.812	(523) 662.161.916
(512) 2.117.762.724	(524) 2.510.368.338
(513) 1.353.586.180	(525) 1.949.069.518
(514) 2.318.982.112	(526) 2.129.864.140
(515) 1.825.048.582	(527) 1.532.935.872
(516) 1.825.340.525	(528) 374.491
(517) 1.383.818.262	(529) 835.603.121
(518) 1.460.651.545	(530) 1.513.063.341

Exercise XXII.—Page 19.

(531) 1.581.521.838	(548) 1.380.746.153
(532) 2.322.145.888	(549) 503.468.259
(533) 1.325.789.710	(550) 1.241.736.906
(534) 1.251.291.924	(551) 326.401.536
(535) 1.345.018.797	(552) 263.116.028
(536) 1.744.640.325	(553) 161.240.971
(537) 2.658.399.978	(554) 605.446.145
(538) 2.820.548.541	(555) 1.204.366.817
(539) 1.068.933.136	(556) 798.861.622
(540) 526.051.470	(557) 988.467.181
(541) 1.567.136.034	(558) 678.735.958
(542) 782.600.390	(559) 812.906.535
(543) 849.278.276	(560) 1.864.189.040
(544) 790.463.908	(561) 1.038.194.044
(545) 500.439.439	(562) 396.074.842
(546) 529.119.026	(563) 821.268.832
(547) 1.415.522.846	

Exercise XXIII.—Page 20.

(564) \$1071'31	(568) \$39753'08	(572) \$203'35
(565) \$2130'14	(569) \$58810'61	(573) \$2807'79
(566) \$4066'26	(570) \$1125'81	(574) \$72'01
(567) \$18242'38	(571) \$2357'52	(575) \$1895'50

Exercise XXIV.—Page 21.

(576) 932.162.610	(586) 1.526.962.031
(577) 832.091.533	(587) 1.595.300.178
(578) 983.424.452	(588) 1.682.144.170
(579) 993.648.026	(589) 2.303.934.742
(580) 1.097.455.899	(590) 2.352.878.150
(581) 1.366.819.251	(591) 2.797.954.988
(582) 1.358.834.819	(592) 2.316.508.346
(583) 2.015.172.633	(593) 2.521.674.799
(584) 2.269.816.940	(594) 2.421.667.435
(585) 2.020.918.121	

Exercise XXV.—Page 22.—(595) 52 yrs. (596) 44 lines.
 (597) B's farm cost \$4674; both cost \$8100. (598) \$696.87.
 (599) \$1812. (600) \$3174.55. (601) 1st \$65, 2nd \$91.30,
 3rd \$123.40, Sun \$279.70. (602) 1622 lbs. (603) 3077 yrs.
 (604) DLXXXIX, 589; CDLXII; 462. MDCCCXCIII, 1893;
 MMMMIV, 4004.

Exercise XXVI.—Page 23.

(605) 548.113	(610) 602.530	(615) 588.364	(620) 839.637
(606) 709.113	(611) 550.208	(616) 477.662	(621) 839.985
(607) 602.335	(612) 670.208	(617) 653.635	(622) 802.189
(608) 582.312	(613) 555.559	(618) 758.172	
(609) 536.044	(614) 542.467	(619) 742.254	

Exercise XXVII.—Page 24.—(623) 152 pupils. (624) 11735
 bus. (625) B gains \$1109; C gains \$1984; all gained
 \$3968. (626) Wood lot, \$4756; store, \$9401; three cost
 \$18107. (627) He gained on both \$653; he received
 for both \$6353. (628) 1350 feet. (629) 999. (630)
 430000. (631) 200 years.

Exercise XXVIII.—Page 25.—(632) 2287. (633) 7604.
 (634) 4627. (635) 9200. (636) First year, 2492 bushels;
 second year, 2102 bushels; third year 2450 bushels; peas,
 1766; oats, 1812; wheat, 1183; barley, 1306; rye, 977.
 (637) Butter, 3045; cheese, 2098; milk, 3332; cream, 2290.

SUBTRACTION.

Exercise XXIX.—Page 26.

- (1) 312 (20) 248 (39) 89 (58) 427 (77) 226 (96) 96
 (2) 111 (21) 128 (40) 477 (59) 212 (78) 497 (97) 567
 (3) 522 (22) 337 (41) 176 (60) 155 (79) 493 (98) 476
 (4) 214 (23) 119 (42) 378 (61) 311 (80) 491 (99) 182
 (5) 221 (24) 127 (43) 368 (62) 466 (81) 608 (100) 387
 (6) 242 (25) 307 (44) 189 (63) 379 (82) 479 (101) 466
 (7) 236 (26) 243 (45) 214 (64) 78 (83) 382 (102) 182
 (8) 125 (27) 513 (46) 279 (65) 198 (84) 191 (103) 477
 (9) 430 (28) 369 (47) 327 (66) 299 (85) 708 (104) 618
 (10) 272 (29) 108 (48) 399 (67) 358 (86) 386 (105) 68
 (11) 208 (30) 308 (49) 472 (68) 258 (87) 179 (106) 477
 (12) 406 (31) 169 (50) 291 (69) 69 (88) 479 (107) 577
 (13) 419 (32) 491 (51) 386 (70) 668 (89) 158 (108) 189
 (14) 218 (33) 479 (52) 389 (71) 61 (90) 481 (109) 288
 (15) 218 (34) 188 (53) 178 (72) 529 (91) 81 (110) 175
 (16) 729 (35) 188 (54) 187 (73) 189 (92) 483 (111) 198
 (17) 219 (36) 188 (55) 53 (74) 163 (93) 675 (112) 158
 (18) 549 (37) 288 (56) 289 (75) 387 (94) 367 (113) 109
 (19) 348 (38) 389 (57) 189 (76) 179 (95) 379 (114) 69

Exercise XXX.—Page 27.

- (115) 447.191 (130) 279.249 (145) 383.369 (150) 319.688
 (116) 637.217 (131) 290.368 (146) 182.277 (161) 269.013
 (117) 381.629 (132) 189.371 (147) 585.189 (162) 357.529
 (118) 162.639 (133) 168.159 (148) 689.828 (163) 112.903
 (119) 189.607 (134) 179.069 (149) 785.248 (164) 490.818
 (120) 189.208 (135) 890.889 (150) 740.076 (165) 160.667
 (121) 347.611 (136) 446.836 (151) 391.468 (166) 278.588
 (122) 247.415 (137) 189.369 (152) 382.578 (167) 193.365
 (123) 367.168 (138) 370.857 (153) 792.466 (168) 282.548
 (124) 379.758 (139) 367.767 (154) 686.868 (169) 58.739
 (125) 279.246 (140) 172.767 (155) 269.338 (170) 378.829
 (126) 66.469 (141) 278.765 (156) 481.915 (171) 328.858
 (127) 310.100 (142) 177.769 (157) 685.462 (172) 167.378
 (128) 73.048 (143) 388.998 (158) 63.498 (173) 275.798
 (129) 390.123 (144) 60.488 (159) 387.912 (174) 298.879

(175) 389.050	(181) 356.576	(187) 106.588	(193) 189.172
(176) 154.949	(182) 198.858	(188) 386.257	(194) 96.817
(177) 245.980	(183) 388.874	(189) 661.858	(195) 145.158
(178) 57.262	(184) 566.428	(190) 167.185	(196) 264.574
(179) 268.176	(185) 87.175	(191) 59.465	(197) 277.687
(180) 170.778	(186) 755.589	(192) 183.487	(198) 55.452

Exercise XXXI.—Page 28. (217) \$1975 cost of John's;
\$4725 cost of both houses.

Exercise XXXII.—page 29.

(218) 445.640.749	(239) 429.887.679	(260) 577.628.009
(219) 407.775.899	(240) 687.499.258	(261) 391.897.229
(220) 191.888.458	(241) 377.491.218	(262) 776.116.307
(221) 251.947.582	(242) 68.831.844	(263) 392.370.834
(222) 607.448.159	(243) 859.928.141	(264) 661.621.882
(223) 689.840.099	(244) 815.069.558	(265) 151.688.049
(224) 752.949.959	(245) 697.662.179	(266) 220.788.146
(225) 488.687.891	(246) 164.109.007	(267) 780.884.921
(226) 99.911.078	(247) 781.677.572	(268) 388.880.891
(227) 199.908.823	(248) 583.885.994	(269) 647.968.837
(228) 444.708.808	(249) 448.299.126	(270) 587.662.291
(229) 168.864.159	(250) 278.775.907	(271) 808.897.743
(230) 535.877.196	(251) 31.131.658	(272) 871.882.626
(231) 819.915.639	(252) 494.658.658	(273) 554.180.499
(232) 195.950.191	(253) 469.282.232	(274) 387.479.765
(233) 250.284.998	(254) 588.979.147	(275) 146.372.743
(234) 69.757.878	(255) 358.999.995	(276) 225.376.464
(235) 188.867.317	(256) 351.322.063	(277) 670.632.455
(236) 181.877.899	(257) 685.074.912	(278) 483.203.848
(237) 737.997.789	(258) 492.888.909	(279) 527.744.828
(238) 390.283.689	(259) 542.918.308	(280) 5.078.815

Exercise XXXIII.—Page 30.

(281) 773.277.875	(285) 177.111.521	(289) 251.817.730
(282) 753.019.798	(286) 278.348.840	(290) 90.889.072
(283) 178.090.921	(287) 181.807.292	(291) 479.158.181
(284) 269.355.781	(288) 292.164.221	(292) 192.177.833

189.172
96.817
145.158
264.574
277.687
55.452

John's ;

628.009
897.229
116.307
370.834
621.882
688.049
788.146
884.921
880.891
968.837
662.291
897.743
882.626
180.499
479.765
372.743
376.464
632.455
203.848
744.828
078.815

817.730
889.072
158.181
177.833

(293) 88.437.502	(310) 788.776.664	(327) 520.481.481
(294) 798.502.909	(311) 514.877.795	(328) 93.767.519
(295) 306.147.824	(312) 458.502.873	(329) 489.780.775
(296) 474.868.620	(313) 75.001.689	(330) 839.092.609
(297) 287.555.996	(314) 277.406.175	(331) 778.318.829
(298) 185.707.833	(315) 360.796.512	(332) 807.867.481
(299) 411.088.255	(316) 170.994.295	(333) 907.724.585
(300) 228.602.731	(317) 176.507.977	(334) 646.891.540
(301) 77.571.559	(318) 832.905.489	(335) 960.688.807
(302) 278.891.782	(319) 390.236.272	(336) 934.974.716
(303) 558.807.729	(320) 197.294.403	(337) 983.918.433
(304) 306.617.649	(321) 853.938.129	(338) 456.117.115
(305) 62.067.922	(322) 308.088.191	(339) 188.171.292
(306) 409.928.094	(323) 881.900.580	(340) 61.452.231
(307) 389.006.779	(324) 79.481.909	(341) 241.438.207
(308) 406.488.206	(325) 679.088.147	(342) 818.634.982
(309) 158.351.774	(326) 881.264.755	(343) 627.584.293

Exercise XXXIV.—Page 31.—(344) 14. (345) 84. (346) 505.
(347) 264. (348) 411. (349) 415. (350) 2.819. (351) 58.654.
(352) 91.281. (353) 3.329.698. (354) 10.995.959.
(355) 8.388.941. (356) 914.036.564. (357) 918.427.
(358) 24.226.521. (359) 888.407. (360) 24.691.357.

Exercise XXXV.—Page 32.

(361) 676.977.255	(374) 486.877.013	(387) 289.487.289
(362) 267.688.129	(375) 267.705.767	(388) 190.945.650
(363) 577.772.963	(376) 581.176.805	(389) 189.517.136
(364) 288.824.854	(377) 765.488.770	(390) 78.089.028
(365) 662.687.804	(378) 287.625.758	(391) 65.387.578
(366) 798.673.975	(379) 478.857.281	(392) 258.660.799
(367) 366.870.750	(380) 575.815.628	(393) 48.841.478
(368) 308.867.505	(381) 390.977.651	(394) 680.289.085
(369) 717.075.449	(382) 183.757.083	(395) 466.857.761
(370) 187.677.775	(383) 484.688.923	(396) 288.866.751
(371) 676.746.484	(384) 468.864.876	(397) 288.889.095
(372) 388.834.427	(385) 459.230.779	(398) 689.826.777
(373) 689.356.302	(386) 469.339.697	(399) 468.423.280

(400) 74.631.286	(408) 378.707.914	(416) 273.003.694
(401) 657.859.780	(409) 689.809.177	(417) 474.084.039
(402) 468.670.783	(410) 540.919.009	(418) 938.932.831
(403) 779.507.179	(411) 563.169.779	(419) 369.122.101
(404) 688.581.670	(412) 666.964.708	(420) 229.212.095
(405) 418.928.008	(413) 779.227.735	(421) 228.176.543
(406) 927.063.679	(414) 482.062.790	(422) 147.288.270
(407) 783.551.786	(415) 235.813.536	(423) 22.008.589

Exercise XXXVI.—Page 33.

(424) 83.838.141	(432) 83.700.508	(439) 62.072.454
(425) 65.402.892	(433) 42.278.208	(440) 45.500.260
(426) 73.099.340	(434) 97.891.556	(441) 92.932.643
(427) 57.386.865	(435) 86.282.236	(442) 39.286.755
(428) 81.289.869	(436) 79.326.175	(443) 81.854.580
(429) 99.299.675	(437) 91.561.042	(444) 90.546.258
(430) 64.548.251	(438) 69.692.612	(445) 73.537.525
(431) 98.772.059		

Exercise XXXVII.—Page 33.

(446) 5.761.695.885	(457) 8.208.716.137
(447) 8.134.849.146	(458) 4.124.170.763
(448) 1.321.060.927	(459) 1.301.053.317
(449) 4.284.207.730	(460) 3.513.664.016
(450) 5.217.545.521	(461) 3.860.196.088
(451) 2.187.844.679	(462) 6.325.213.120
(452) 8.128.042.449	(463) 4.959.625.224
(453) 5.206.357.417	(464) 4.288.864.830
(454) 4.098.536.990	(465) 1.204.446.256
(455) 1.289.158.718	(466) 5.904.030.833
(456) 4.212.561.283	(467) 4.366.462.687

Exercise XXXVIII.—Page 33.

(468) 83.959	(474) 80.243	(480) 50.312	(485) 63.796
(469) 51.210	(475) 89.198	(481) 51.547	(486) 79.056
(470) 37.270	(476) 43.246	(482) 95.891	(487) 81.526
(471) 57.572	(477) 102.910	(483) 39.262	(488) 35.364
(472) 41.033	(478) 34.277	(484) 73.076	(489) 78.105
(473) 59.333	(479) 67.559		

Exercise XXXIX.—Page 34.—(490) 7.017.587.146.

- (491) 2.460.612.151. (492) 981.045. (493) 8.590.402.
 (494) 75.313.689. (495) 6.982.390. (496) 63.119.946.
 (497) 806. (498) 71.359. (499) 66.830. (500) 923 (501) 332.
 (502) 80.431. (503) 14.277. (504) 751. (505) 840.

Exercise XL.—Page 34.—(506) 898.913.850.

- (507) 873.309.636. (508) 8.980.806.836. (509) 1.
 (510) 2.266.623. (511) 78.283. (512) 834. (513) 2.139.
 (514) 18.070. (515) 8.588. (516) 9.213 (517) 1.896.
 (518) 364. (519) 814.263. (520) 308.354.

Exercise XLI.—Page 35.—(521) \$1212.01. (522) \$6286.27.

- (523) \$3331.54. (524) 265.190. (525) \$324.62. (526) \$1339.25
 (527) \$51.58. (528) \$1636.20. (529) \$243.25. (530) \$380.50.

Exercise XLII.—Page 36.

- (531) 44516 (536) 72523 (541) 8831203 (546) 193954
 (532) 73121 (537) 699513 (542) 7083054 (547) 72361
 (533) 30678 (538) 90152 (543) 136330 (548) 59170
 (534) 164401 (539) 169253 (544) 838455 (549) 231891
 (535) 165402 (540) 448156 (545) 20300

Exercise XLIII.—Page 37.—(550) 799 wheat, 487 oats

- (551) \$485.00. (552) 628 sheep. (553) \$1816. (554) 875
 oranges. (555) 76. (556) 1330. (557) 64 years. (558) 18113
 miles.

Exercise XLIV.—Page 38.—(559) 11100. (560) \$14950.

- (561) \$365.68. (562) 5619. (563) 9196591. (564) 30492
 cents. (565) 1801. (566) 877. (567) 999991. (568) 5547.
 (569) \$3527.00 (570) Jno's \$15690, both \$36455

MULTIPLICATION.

Exercise XLV.—Page 39.

(1) 112	(24) 4528	(47) 1932	(70) 3920	(93) 2022
(2) 226	(25) 7443	(48) 6152	(71) 2202	(94) 3492
(3) 369	(26) 1880	(49) 4293	(72) 3423	(95) 2265
(4) 496	(27) 1869	(50) 1390	(73) 6312	(96) 4602
(5) 1075	(28) 1816	(51) 2967	(74) 8073	(97) 6825
(6) 5412	(29) 2 ^p	(52) 2196	(75) 1512	(98) 0
(7) 4998	(30) 5444	(53) 4270	(76) 2028	(99) 7578
(8) 5656	(31) 2569	(54) 1722	(77) 2996	(100) 1908
(9) 3744	(32) 3624	(55) 3374	(78) 4380	(101) 1125
(10) 1090	(33) 7578	(56) 5384	(79) 4608	(102) 3380
(11) 1038	(34) 1538	(57) 4068	(80) 5523	(103) 3370
(12) 1104	(35) 2541	(58) 1648	(81) 6152	(104) 2082
(13) 1535	(36) 2256	(59) 1041	(82) 7911	(105) 4032
(14) 2436	(37) 2820	(60) 2841	(83) 912	(106) 7008
(15) 3829	(38) 2274	(61) 2616	(84) 2367	(107) 6885
(16) 6132	(39) 2849	(62) 4210	(85) 3504	(108) 8739
(17) 3834	(40) 6712	(63) 4572	(86) 2280	(109) 1070
(18) 578	(41) 8883	(64) 3164	(87) 4608	(110) 1917
(19) 2820	(42) 1352	(65) 6112	(88) 3332	(111) 2904
(20) 1904	(43) 1308	(66) 7866	(89) 2776	(112) 3410
(21) 3815	(44) 3708	(67) 1530	(90) 8001	(113) 3332
(22) 2274	(45) 4375	(68) 2061	(91) 7101	(114) 6201
(23) 1715	(46) 2784	(69) 1816	(92) 940	.

Exercise XLVI.—Page 40.

(115) 979.014	(126) 4.575.949	(137) 5.387.672
(116) 1.964.292	(127) 5.036.736	(138) 6.730.443
(117) 802.820	(128) 2.884.120	(139) 8.480.484
(118) 4.623.270	(129) 5.956.216	(140) 1.908.752
(119) 4.520.442	(130) 6.097.104	(141) 2.226.261
(120) 6.462.729	(131) 1.950.090	(142) 1.711.868
(121) 7.614.776	(132) 1.643.562	(143) 2.284.380
(122) 5.916.888	(133) 2.613.628	(144) 2.073.924
(123) 5.024.856	(134) 3.767.115	(145) 6.005.832
(124) 4.690.525	(135) 5.128.518	(146) 3.873.896
(125) 1.824.096	(136) 6.002.171	(147) 7.830.801

(148) 1.148.690	(165) 2.227.167	(182) 1.501.624
(149) 2.086.944	(166) 3.503.136	(183) 4.637.270
(150) 1.962.711	(167) 3.237.740	(184) 5.432.718
(151) 2.305.936	(168) 2.906.244	(185) 6.763.240
(152) 1.952.710	(169) 4.815.293	(186) 7.610.463
(153) 5.491.920	(170) 7.014.312	(187) 3.841.817
(154) 3.882.368	(171) 6.208.911	(188) 1.041.417
(155) 8.511.102	(172) 5.935.909	(189) 3.644.112
(156) 738.904	(173) 5.398.312	(190) 1.370.484
(157) 2.592.621	(174) 8.889.165	(191) 2.950.956
(158) 1.902.616	(175) 1.370.721	(192) 2.189.112
(159) 1.827.040	(176) 3.501.800	(193) 2.281.605
(160) 4.944.150	(177) 1.787.025	(194) 3.084.174
(161) 3.833.802	(178) 5.853.924	(195) 2.777.112
(162) 7.038.312	(179) 6.349.525	(196) 3.703.720
(163) 4.389.084	(180) 4.624.360	(197) 2.696.771
(164) 1.530.956	(181) 8.773.506	(198) 5.071.554

Exercise XLVII.—Page 41.

(199) 1.436.952.508	(217) 2.302.786.828
(200) 2.294.603.934	(218) 4.770.042.895
(201) 2.789.496.096	(219) 2.769.038.489
(202) 6.003.584.475	(220) 3.548.560.592
(203) 4.617.928.614	(221) 7.108.837.155
(204) 3.327.993.578	(222) 7.175.151.632
(205) 5.557.958.616	(223) 8.787.208.077
(206) 8.870.080.878	(224) 6.913.578.553
(207) 6.783.676.336	(225) 6.696.432.056
(208) 4.425.424.452	(226) 4.446.068.886
(209) 6.260.413.649	(227) 4.023.980.632
(210) 3.963.350.370	(228) 5.981.427.624
(211) 2.947.703.721	(229) 4.291.781.463
(212) 3.520.349.480	(230) 4.375.008.040
(213) 1.895.215.054	(231) 4.251.835.049
(214) 5.920.562.571	(232) 5.411.390.032
(215) 1.432.220.469	(233) 3.261.408.040
(216) 2.386.541.568	(234) 3.590.826.042

- | | |
|---------------------|---------------------|
| (235) 3.470.038.390 | (249) 4.570.110.678 |
| (236) 3.138.613.936 | (250) 2.459.622.832 |
| (237) 2.519.263.821 | (251) 8.166.647.916 |
| (238) 2.383.774.135 | (252) 2.468.514.645 |
| (239) 3.928.920.444 | (253) 2.097.407.472 |
| (240) 4.942.052.325 | (254) 6.677.325.326 |
| (241) 3.456.304.336 | (255) 3.820.922.847 |
| (242) 7.798.619.632 | (256) 3.837.551.772 |
| (243) 1.823.723.421 | (257) 3.955.105.352 |
| (244) 1.497.508.194 | (258) 4.889.065.356 |
| (245) 7.003.791.792 | (259) 1.876.803.472 |
| (246) 2.299.419.868 | (260) 4.835.281.482 |
| (247) 2.421.632.230 | (261) 3.428.754.864 |
| (248) 5.404.451.124 | |

Exercise XLVIII.—Page 42.—(262) \$27, \$81. (263) 84 miles, 28 miles, 126 miles. (264) \$62. (265) 300 miles. (266) \$112. (267) \$25 loss. (268) \$220. (269) \$10365. (270) 81317520 stalks. (271) \$1360. (272) \$985. (273) \$257'50.

Exercise XLIX.—Page 43.

- | | | | |
|--------------|--------------|--------------|--------------|
| (274) 2.150 | (290) 22.646 | (306) 17.010 | (322) 55.506 |
| (275) 7.909 | (291) 26.352 | (307) 20.210 | (323) 53.513 |
| (276) 3.888 | (292) 13.356 | (308) 21.428 | (324) 28.500 |
| (277) 5.538 | (293) 25.462 | (309) 22.725 | (325) 39.894 |
| (278) 7.406 | (294) 29.520 | (310) 27.140 | (326) 54.312 |
| (279) 9.495 | (295) 11.966 | (311) 25.333 | (327) 60.228 |
| (280) 11.760 | (296) 15.584 | (312) 30.000 | (328) 27.968 |
| (281) 9.180 | (297) 19.536 | (313) 29.841 | (329) 56.225 |
| (282) 4.410 | (298) 23.698 | (314) 33.800 | (330) 50.556 |
| (283) 14.326 | (299) 27.125 | (315) 35.853 | (331) 64.588 |
| (284) 9.120 | (300) 6.624 | (316) 39.000 | (332) 24.072 |
| (285) 7.539 | (301) 13.135 | (317) 39.591 | (333) 67.896 |
| (286) 12.408 | (302) 37.126 | (318) 47.088 | (334) 59.780 |
| (287) 3.841 | (303) 13.416 | (319) 47.850 | (335) 40.328 |
| (288) 13.632 | (304) 14.360 | (320) 45.192 | (336) 34.272 |
| (289) 16.725 | (305) 15.211 | (321) 53.580 | (337) 72.051 |

(338) 49.876	(354) 88.110	(370) 36.675	(385) 48.552
(339) 63.375	(355) 59.787	(371) 22.512	(386) 45.402
(340) 74.176	(356) 82.340	(372) 47.196	(387) 21.328
(341) 57.211	(357) 87.141	(373) 51.357	(388) 19.788
(342) 68.328	(358) 43.616	(374) 22.230	(389) 55.350
(343) 60.751	(359) 65.265	(375) 31.464	(390) 40.232
(344) 28.560	(360) 93.888	(376) 62.946	(391) 42.408
(345) 39.447	(361) 73.138	(377) 77.025	(392) 48.868
(346) 56.498	(362) 85.652	(378) 36.105	(393) 27.248
(347) 47.642	(363) 94.446	(379) 74.375	(394) 56.274
(348) 55.188	(364) 12.105	(380) 41.240	(395) 32.964
(349) 83.895	(365) 8.664	(381) 30.393	(396) 42.550
(350) 57.878	(366) 23.400	(382) 37.904	(397) 42.532
(351) 39.759	(367) 12.258	(383) 35.644	(398) 58.905
(352) 86.592	(368) 13.608	(384) 42.903	(399) 61.446
(353) 73.603	(369) 17.328		

Exercise L.—Page 44.

(400) 2.764.750	(420) 25.307.280	(440) 23.503.950
(401) 10.503.108	(421) 24.639.017	(441) 42.535.377
(402) 4.619.484	(422) 27.311.264	(442) 50.780.080
(403) 7.896.265	(423) 31.608.522	(443) 34.678.960
(404) 11.303.670	(424) 20.224.118	(444) 40.706.604
(405) 14.157.330	(425) 33.031.390	(445) 33.038.500
(406) 11.312.720	(426) 21.954.024	(446) 22.845.424
(407) 11.469.101	(427) 29.400.348	(447) 47.578.185
(408) 13.568.832	(428) 31.443.252	(448) 56.651.674
(409) 14.585.996	(429) 31.061.550	(449) 28.893.613
(410) 13.149.780	(430) 27.482.800	(450) 47.787.180
(411) 17.319.875	(431) 34.224.750	(451) 48.484.935
(412) 10.492.614	(432) 41.010.900	(452) 28.331.148
(413) 19.664.103	(433) 26.132.863	(453) 40.751.802
(414) 16.197.528	(434) 40.506.114	(454) 29.246.528
(415) 24.675.175	(435) 33.607.080	(455) 23.819.640
(416) 22.871.628	(436) 34.932.722	(456) 59.195.862
(417) 20.773.989	(437) 31.819.329	(457) 30.436.425
(418) 23.398.984	(438) 38.229.600	(458) 51.240.516
(419) 22.817.055	(439) 48.253.485	(459) 29.529.723

(460)	45.785.530	(468)	68.178.162	(476)	77.110.868
(461)	63.733.434	(469)	10.638.930	(477)	85.760.424
(462)	48.885.624	(470)	61.588.720	(478)	61.369.880
(463)	49.265.875	(471)	54.664.794	(479)	67.167.677
(464)	72.139.196	(472)	62.234.228	(480)	80.682.210
(465)	52.157.775	(473)	70.853.531	(481)	51.205.427
(466)	51.289.664	(474)	72.714.348	(482)	79.071.516
(467)	58.347.443	(475)	58.385.990	(483)	88.001.901

Exercise LI.—Page 45.

(484)	45.421.899.324	(510)	39.444.296.400
(485)	41.338.532.938	(511)	64.017.808.148
(486)	29.138.163.792	(512)	59.077.742.380
(487)	41.893.847.422	(513)	65.909.227.350
(488)	33.740.350.450	(514)	36.464.015.300
(489)	44.592.874.794	(515)	59.119.666.683
(490)	45.459.284.468	(516)	52.926.548.142
(491)	35.664.771.000	(517)	36.960.493.334
(492)	23.224.301.316	(518)	27.750.286.080
(493)	37.114.418.275	(519)	77.572.877.445
(494)	26.868.692.424	(520)	66.254.069.146
(495)	49.832.403.729	(521)	77.009.679.429
(496)	17.263.982.692	(522)	38.134.031.628
(497)	47.087.138.605	(523)	63.407.998.505
(498)	29.278.489.680	(524)	54.165.773.622
(499)	39.896.284.999	(525)	72.877.689.243
(500)	42.150.971.064	(526)	41.879.191.816
(501)	31.490.825.436	(527)	67.605.063.584
(502)	29.074.233.408	(528)	74.510.708.850
(503)	63.368.244.940	(529)	43.404.073.349
(504)	52.591.583.682	(530)	36.413.388.216
(505)	44.211.862.381	(531)	73.975.723.770
(506)	54.182.431.076	(532)	75.930.143.966
(507)	46.837.231.533	(533)	45.503.067.130
(508)	33.435.741.990	(534)	37.428.345.408
(509)	23.073.825.447	(535)	81.273.864.718

(536) 57.619.588.040	(542) 88.860.189.510
(537) 67.175.612.757	(543) 50.649.328.308
(538) 33.825.181.558	(544) 73.724.605.416
(539) 72.402.549.300	(545) 31.624.299.070
(540) 33.754.759.014	(546) 50.987.643.720
(541) 24.886.743.324	

Exercise LII.—Page 46.—(547) \$1280. (548) 3000 00.
 (549) \$62.25. (550) \$11.60. (551) \$1750.14. (552) \$19.60.
 (553) \$84.50. (554) \$275.31. (555) \$3075.00. (556) \$174.96.
 (557) \$721.00. (558) \$496.40. (559) \$123.50.

Exercise LIII.—Page 47.

(560) 357.733.508.656	(583) 284.765.309.286
(561) 656.679.587.662	(584) 252.881.820.480
(562) 779.235.449.375	(585) 442.452.158.112
(563) 723.247.415.856	(586) 391.654.116.401
(564) 380.728.088.284	(587) 544.113.434.124
(565) 856.050.665.562	(588) 705.624.571.176
(566) 452.859.989.487	(589) 657.347.372.550
(567) 491.591.183.065	(590) 770.705.716.096
(568) 728.862.118.032	(591) 147.083.020.504
(569) 561.523.057.806	(592) 294.561.206.784
(570) 438.125.286.696	(593) 337.194.765.464
(571) 731.097.108.962	(594) 415.078.292.975
(572) 782.579.488.998	(595) 517.136.835.456
(573) 635.083.638.901	(596) 639.921.999.600
(574) 309.690.864.600	(597) 512.141.653.683
(575) 449.066.450.232	(598) 795.207.005.145
(576) 340.836.154.372	(599) 878.880.884.301
(577) 468.413.015.869	(600) 87.894.753.700
(578) 363.578.727.609	(601) 206.473.784.058
(579) 743.337.081.177	(602) 265.538.759.580
(580) 587.684.397.467	(603) 467.708.092.710
(581) 923.324.889.384	(604) 883.951.094.330
(582) 95.844.911.880	(605) 505.777.857.485

(606) 466.754.972.989	(615) 256.010.632.449
(607) 344.008.244.685	(616) 284.684.054.620
(608) 546.241.954.215	(617) 628.780.297.530
(609) 461.137.750.920	(618) 242.493.383.394
(610) 575.142.994.899	(619) 625.403.493.570
(611) 592.131.746.245	(620) 131.853.146.535
(612) 688.605.953.144	(621) 383.314.448.853
(613) 273.457.581.150	(622) 740.389.131.396
(614) 659.424.143.070	

Exercise LIV.—Page 48.

(623) 2.088.806.277.068	(648) 2.085.216.085.375
(624) 8.750.588.041.086	(649) 4.318.862.504.418
(625) 6.101.179.786.812	(650) 6.291.895.307.952
(626) 4.038.815.498.912	(651) 2.824.933.554.828
(627) 3.562.207.229.692	(652) 3.829.630.840.064
(628) 4.245.166.285.260	(653) 8.318.968.090.676
(629) 4.454.227.748.575	(654) 781.126.304.862
(630) 1.506.372.876.974	(655) 1.435.197.115.299
(631) 3.432.744.058.018	(656) 3.138.004.647.936
(632) 9.642.982.436.424	(657) 3.134.289.821.421
(633) 4.056.735.948.732	(658) 1.945.756.605.827
(634) 6.124.535.843.865	(659) 3.529.678.313.470
(635) 7.695.487.234.050	(660) 7.912.169.252.350
(636) 1.058.624.599.812	(661) 4.212.681.177.320
(637) 987.752.151.384	(662) 4.730.541.787.970
(638) 2.731.259.446.652	(663) 1.036.249.747.304
(639) 3.988.870.719.753	(664) 1.195.225.657.150
(640) 3.347.883.419.712	(665) 3.330.603.002.105
(641) 2.349.330.637.950	(666) 3.066.675.860.500
(642) 3.559.607.130.832	(667) 4.577.428.511.712
(643) 8.031.692.757.396	(668) 1.443.165.657.150
(644) 7.323.777.933.056	(669) 3.329.844.866.605
(645) 801.174.332.686	(670) 3.066.675.860.500
(646) 1.965.862.157.395	(671) 4.577.428.511.712
(647) 2.915.258.020.675	(672) 5.961.530.066.450

(673) 4.294.255.204.910	(680) 4.069.144.777.038
(674) 6.727.315.162.484	(681) 5.890.946.984.565
(675) 4.198.345.290.225	(682) 8.353.653.167.608
(676) 9.158.416.936.255	(683) 2.851.204.605.024
(677) 3.541.903.277.150	(684) 2.770.093.787.944
(678) 2.840.296.022.976	(685) 5.759.206.343.875
(679) 7.146.775.877.740	

Exercise LV.—Page 49.

(686) 6.230.000.000	(714) 1.116.480.000
(687) 3.105.621.000	(715) 4.790.730.000
(688) 6.305.000.000	(716) 1.033.200.000
(689) 7.275.000.000	(717) 56.392.000.000
(690) 38.070.000.000	(718) 25.788.900.000.000
(691) 2.762.500.000	(719) 620.542.000.000.000
(692) 3.120.000.000	(720) 231.817.300.000.000
(693) 6.675.000.000	(721) 583.299.600.000.000
(694) 7.176.000.000	(722) 234.423.000.000.000
(695) 1.927.800.000	(723) 53.362.730.000.000
(696) 2.400.000.000	(724) 6.459.257.160.000
(697) 4.991.500.000	(725) 831.539.610.000.000
(698) 3.455.100.000	(726) 3.782.900.000.000.000
(699) 5.650.500.000	(727) 465.827.854.800.000
(700) 228.150.000	(728) 150.362.028.000.000
(701) 7.873.500.000	(729) 335.622.783.600.000
(702) 47.502.000.000	(730) 240.420.550.500.000
(703) 34.799.580.000	(731) 4.428.736.021.000.000
(704) 84.563.640.000	(732) 269.763.780.000.000
(705) 56.121.760.000	(733) 446.163.203.200.000
(706) 1.135.000.000	(734) 610.838.802.000.000
(707) 3.885.820.000	(735) 544.927.102.800.000
(708) 820.800.000	(736) 400.555.340.000.000
(709) 6.911.800.000	(737) 664.120.870.000.000
(710) 2.410.000.000	(738) 240.530.280.000.000
(711) 6.583.680.000	(739) 40.233.576.000.000
(712) 5.871.900.000	(740) 564.634.500.000.000
(713) 1.483.900.000	(741) 212.937.180.000.000

(742)	30.776.928.000.000	(746)	15.450.081.562.125
(743)	16.286.478.000.000	(747)	34.964.252.170.936
(744)	24.708.563.000.000	(748)	42.898.499.369.175
(745)	45.858.309.038.976		

Exercise LVI.—Page 50.—(749) 672 miles. (750) \$73.548
 (751) 2.540 miles. (752) \$17.260.50. (753) \$7.235; C.'s \$36.657
 (754) \$23.304. (755) 469.645 A. (756) \$109.50 gain.
 (757) \$7.04.

Exercise LVII.—Page 51.

No. **758**:—(1) 283.024. (2) 178.084. (3) 264.196. (4) 179.776.
 (5) 550.564. (6) 189.225. (7) 198.916. (8) 549.081. (9) 198.025.
 (10) 202.500. (11) 960.400. (12) 412.164. (13) 186.624.
 (14) 859.329. (15) 720.801. (16) 400.689. (17) 47.961.
 (18) 38.416. (19) 76.176. (20) 944.784. (21) 125.025.
 (22) 470.596.

No. **759**:—(1) 195.364. (2) 118.336. (3) 188.356. (4) 110.224.
 (5) 194.481. (6) 104.976. (7) 889.249. (8) 119.716. (9) 50.176.
 (10) 104.976. (11) 556.516. (12) 546.121. (13) 948.676.
 (14) 469.225. (15) 751.689. (16) 710.649. (17) 458.329.
 (18) 751.689. (19) 127.449. (20) 190.969. (21) 466.489.
 (22) 488.601.

No. **760**:—(1) 891.136. (2) 55.225. (3) 50.176. (4) 171.396.
 (5) 53.824. (6) 522.729. (7) 675.684. (8) 59.536. (9) 116.964.
 (10) 885.481. (11) 184.900. (12) 127.449. (13) 186.624.
 (14) 859.329. (15) 558.009. (16) 772.641. (17) 89.401.
 (18) 974.189. (19) 339.889. (20) 751.689. (21) 605.284
 (22) 77.841.

No. **761**:—(1) 414.736. (2) 286.225. (3) 389.376. (4) 171.396.
 (5) 255.025. (6) 308.025. (7) 206.116. (8) 309.136. (9) 327.184.
 (10) 308.025. (11) 580.644. (12) 37.864. (13) 213.444.
 (14) 116.964. (15) 879.844. (16) 357.604. (17) 872.356.
 (18) 770.884. (19) 588.289. (20) 142.884. (21) 407.044.
 (22) 298.116.

No. **762**:—(1) 678.976. (2) 400.689. (3) 454.276. (4) 430.336
 (5) 215.296. (6) 438.244. (7) 914.936. (8) 421.201. (9) 404.496.
 (10) 311.876. (11) 82.369. (12) 191.844. (13) 208.849.

- (14) 527.076. (15) 531.441. (16) 389.376. (17) 179.776.
 (18) 802.816. (19) 786.769. (20) 27.225. (21) 591.361.
 (22) 143.641.

- No. 763:—(1) 603.729. (2) 531.441. (3) 544.644. (4) 558.009.
 (5) 573.049. (6) 588.289. (7) 597.529. (8) 599.076. (9) 600.625.
 (10) 602.176. (11) 195.364. (12) 412.164. (13) 628.849.
 (14) 148.996 (15) 82.369. (16) 529.984. (17) 719.104.
 (18) 121.801. (19) 407.044. (20) 459.684. (21) 700.569.
 (22) 231.361.

- No. 764:—(1) 788.544. (2) 956.484. (3) 784.996. (4) 746.496.
 (5) 737.881. (6) 559.504. (7) 698.896. (8) 678.976. (9) 659.344.
 (10) 644.809. (11) 597.529. (12) 412.164. (13) 213.444.
 (14) 614.656. (15) 971.225. (16) 611.524. (17) 946.729.
 (18) 42.849. (19) 239.121. (20) 26.896. (21) 409.600.
 (22) 425.104.

Exercise LVIII.—Page 51.

- No. 765:—(1) 281.011.375. (2) 99.897.344. (3) 96.702.579.
 (4) 895.841.344. (5) 95.443.993. (6) 449.455.096. (7) 96.702.579.
 (8) 178.453.547. (9) 95.443.993. (10) 269.586.136.
 (11) 444.194.947. (12) 82.881.856. (13) 605.495.736.
 (14) 26.198.073. (15) 57.512.456. (16) 442.450.728.
 (17) 286.191.179.

- No. 766:—(1) 170.398.875. (2) 167.238.693. (3) 181.321.496.
 (4) 162.771.336. (5) 153.990.656. (6) 181.321.496.
 (7) 180.362.125. (8) 182.284.263. (9) 179.406.144.
 (10) 182.284.263. (11) 80.062.991. (12) 408.518.488.
 (13) 801.765.089. (14) 24.897.088. (15) 601.211.584.
 (16) 433.798.093. (17) 491.169.069.

- No. 767:—(1) 293.408.296. (2) 282.300.416. (3) 269.586.136.
 (4) 398.688.256. (5) 245.314.376. (6) 768.575.296. (7) 233.744.896.
 (8) 66.923.416. (9) 16.581.375. (10) 267.089.984. (11) 52.253.624.
 (12) 327.082.769. (13) 100.544.625. (14) 57.960.603.
 (15) 955.671.625. (16) 447.697.125. (17) 958.576.256.

- No. 768:—(1) 67.419.143. (2) 368.601.813. (3) 384.240.583.
 (4) 400.315.553. (5) 416.832.723. (6) 433.798.093.
 (7) 451.217.663. (8) 469.097.433. (9) 463.684.824.

- (10) 465.484.375. (11) 100.544.625. (12) 40.001.688.
 (13) 432.081.216. (14) 190.109.375. (15) 40.707.584.
 (16) 609.800.192. (17) 114.791.256.

- No. 769:—(1) 748.613.312. (2) 547.343.432. (3) 567.663.552.
 (4) 588.480.472. (5) 609.800.192. (6) 631.628.712.
 (7) 653.972.032. (8) 676.836.152. (9) 700.227.072.
 (10) 697.864.103. (11) 398.688.256. (12) 500.566.184.
 (13) 73.560.059. (14) 122.763.473. (15) 42.144.192.
 (16) 656.321.809. (17) 340.068.392.

- No. 770:—(1) 356.400.829. (2) 776.151.559. (3) 801.765.089.
 (4) 827.936.019. (5) 854.670.349. (6) 881.974.079.
 (7) 909.853.209. (8) 938.313.739. (9) 967.361.669.
 (10) 985.902.999. (11) 81.182.737. (12) 596.947.688.
 (13) 122.023.936. (14) 401.947.272. (15) 724.150.792.
 (16) 567.663.552. (17) 260.917.119.

- No. 771:—(1) 123.505.992. (2) 122.763.473. (3) 988.047.936.
 (4) 985.074.875. (5) 982.107.784. (6) 979.146.657.
 (7) 976.191.488. (8) 973.242.271. (9) 970.299.000.
 (10) 964.430.272. (11) 191.026.973. (12) 101.847.563.
 (13) 116.930.169. (14) 223.648.543. (15) 35.611.289.
 (16) 491.169.069. (17) 160.103.007.

Exercise LIX.—Page 52.

- | | |
|---------------------|---------------------|
| (772) 141.987.648 | (786) 1.860.672.576 |
| (773) 207.301.248 | (787) 1.296.163.206 |
| (774) 70.286.827 | (788) 1.119.230.640 |
| (775) 99.286.308 | (789) 2.127.706.944 |
| (776) 127.441.314 | (790) 805.136.160 |
| (777) 79.462.548 | (791) 1.160.254.722 |
| (778) 2.075.682.240 | (792) 1.095.621.120 |
| (779) 1.184.431.920 | (793) 1.230.832.680 |
| (780) 517.906.389 | (794) 1.866.480.000 |
| (781) 530.441.100 | (795) 334.579.440 |
| (782) 1.141.221.228 | (796) 1.868.604.936 |
| (783) 677.750.016 | (797) 656.216.680 |
| (784) 1.246.215.000 | (798) 875.632.640 |
| (785) 1.282.746.696 | (799) 855.564.000 |

Exercise LX.—Page 52.

(800) 2.855.395.392	(814) 3.684.838.560
(801) 1.823.519.616	(815) 3.325.926.240
(802) 4.680.480.168	(816) 923.705.600
(803) 48.526.880	(817) 6.008.960
(804) 2.930.138.496	(818) 360.138.240
(805) 55.376.683	(819) 5.705.185.992
(806) 11.635.103.250	(820) 11.511.413.120
(807) 15.643.620.720	(821) 17.448.818.040
(808) 12.392.062.200	(822) 19.819.118.550
(809) 4.295.429	(823) 23.267.079.900
(810) 56.276.223.444	(824) 13.235.435.640
(811) 6.986.681.520	(825) 13.234.668.480
(812) 14.701.514.390	(826) 12.305.528.040
(813) 29.971.110	(827) 909.642.770

Exercise LXI is intended chiefly for blackboard drill, so no answers are given.

Exercise LXII.—Page 53. (852) 133 days. (853) 184; 148; 200. (854) 144 days. (855) \$61.20. (856) Lost \$1.00. (857) \$203.75. (858) \$37.50. (859) \$718.75. (860) \$60.00. (861) \$4.50. (862) 357 bush. (863) 100. (864) 1. (865) 160. (866) 1.279. (867) 104. (868) 96. (869) 94. (870) 13.171.

DIVISION.
Exercise LXIII.—Page 54.—

(1) 234	(9) 214	(17) 162	(25) 91	(33) 112
(2) 342	(10) 317	(18) 179	(26) 175	(34) 113
(3) 431	(11) 281	(19) 228	(27) 194	(35) 126
(4) 282	(12) 244	(20) 156	(28) 149	(36) 132
(5) 282-1	(13) 185	(21) 233	(29) 103	(37) 139
(6) 289	(14) 291	(22) 189	(30) 133	(38) 101
(7) 476	(15) 248	(23) 159	(31) 44	(39) 119
(8) 214	(16) 196	(24) 134	(32) 66	(40) 109

(41) 108	(49) 39	(57) 141	(65) 42	(72) 31
(42) 158-4	(50) 49	(58) 137	(56) 75	(73) 76
(43) 129	(51) 92	(59) 118	(67) 84	(74) 99
(44) 63	(52) 89	(60) 88	(68) 79	(75) 109
(45) 131	(53) 57	(61) 24	(69) 49	(76) 12
(46) 75	(54) 41	(62) 47	(70) 54	(77) 26
(47) 84	(55) 29	(63) 104	(71) 119	(78) 38
(48) 62	(56) 97	(64) 92		

Exercise LXIV.—Page 55.

(79) 210.236	(99) 55.501	(119) 200.304
(80) 188.107	(100) 120.293	(120) 200.234
(81) 197.254	(101) 56.577	(121) 105.259
(82) 81.526	(102) 96.680	(122) 120.886
(83) 71.072	(103) 226.001	(123) 57.972
(84) 134.839	(104) 248.928-2	(124) 68.417
(85) 86.765	(105) 135.191	(125) 81.252
(86) 38.001	(106) 130.805	(126) 50.001
(87) 233.556	(107) 79.840	(127) 403.701
(88) 278.203-1	(108) 107.286	(128) 181.007
(89) 219.855	(109) 54.067	(129) 168.527
(90) 159.285	(110) 45.028	(130) 94.005
(91) 82.105	(111) 172.344	(131) 125.007
(92) 121.894	(112) 159.451	(132) 127.787
(93) 21.175	(113) 26.856	(133) 108.751
(94) 48.400	(114) 151.357	(134) 50.701
(95) 270.013	(115) 163.501	(135) 97.136
(96) 214.671	(116) 64.801	(136) 90.003
(97) 177.006	(117) 92.996	(137) 67.966
(98) 80.011	(118) 30.251-4	(138) 51.069-3.

Exercise LXV.—Page 56.

(139) 228.394.802	(143) 57.024.067
(140) 150.021.667-2	(144) 116.393.842
(141) 185.016.953	(145) 54.450.879
(142) 113.575.681	(146) 99.009.571-5

72) 31	(147) 203.392.012	(166) 137.161.581
73) 76	(148) 213.411.135	(167) 70.296.679
74) 99	(149) 168.701.624	(168) 135.085.826-4
75) 109	(150) 149.361.121	(169) 43.450.639
76) 12	(151) 113.078.717	(170) 533.156.679
77) 26	(152) 106.515.401	(171) 238.267.426
78) 38	(153) 70.980.701	(172) 248.947.803
	(154) 45.007.014	(173) 119.105.004
	(155) 238.003.925	(174) 121.401.680
	(156) 217.002.153	(175) 62.333.350
	(157) 219.101.761	(176) 105.872.544
	(158) 159.492.157	(177) 57.113.014
	(159) 123.507.504	(178) 82.335.356-3
	(160) 49.382.582	(179) 149.356.864
	(161) 81.790.977	(180) 67.014.001
	(162) 44.477.800	(181) 65.263.395
	(163) 117.283.945	(182) 56.775.976
	(164) 254.895.267	(183) 50.010.336
	(165) 238.566.962	

Exercise LXVI.—Page 57. (184) 4, 7, 8, 5, 2. (185) 12, 9, 6, 8. (186) 3, 9, 12, 6 (187) 7, 2, 8, 11, 5. (188) 8, 5, 9, 2. (189) 4, 9, 6, 12, 4½. (190) 7, 3, 2, 5, 9. (191) \$108.50. (192) 205. (193) 1.920½. (194) 21. (195) \$7220. (196) \$189

Exercise LXVII.—Page 58.

(197) 32-2	(208) 47-12	(219) 21-12	(230) 33-18.
(198) 36-9	(209) 47-5	(220) 31-12	(231) 14-12
(199) 17-3	(210) 38-6	(221) 21-10	(232) 7-1
(200) 33-11	(211) 10-14	(222) 38-21	(233) 7-4
(201) 13-5	(212) 13-9	(223) 31-1	(334) 10-11
(202) 21-1	(213) 11	(224) 25-6	(235) 25-11
(203) 61-2	(214) 24-5	(225) 21-17	(236) 15-4
(204) 70-4	(215) 10-17	(226) 31-5	(237) 6-11
(205) 13-10	(216) 27-9	(227) 13-16	(238) 9-6
(206) 23	(217) 17-19	(228) 6-20	(239) 22-21
(207) 28-8	(218) 31-3	(229) 28-13	(240) 12-29.

(241) 6-1	(253) 21	(265) 9-12	(277) 15-4
(242) 11-33	(254) 16	(266) 21-24	(278) 17-4
(243) 24-12	(255) 7-34	(267) 5-41	(279) 19-20
(244) 18-24	(256) 17-22	(268) 12-15	(280) 14-40
(245) 8-19	(257) 17-32	(269) 17-8	(281) 17-24
(246) 5-27	(258) 14-13	(270) 18-40	(282) 17-14
(247) 14-27	(259) 8-32	(271) 16-36	(283) 18-10
(248) 17	(260) 4-29	(272) 9-20	(284) 15-30
(249) 10-25	(261) 9-9	(273) 8-13	(285) 18-4
(250) 9-1	(262) 20-18	(274) 4-43	(286) 17-50
(251) 24-18	(263) 20-8	(275) 16-20	
(252) 11-23	(264) 8-18	(276) 20-19	

Exercise LXVIII.—Page 59.

(287) 79.471-6	(307) 28.238-27	(327) 12.464-37
(288) 45.274	(308) 30.805-24	(328) 14.219-13
(289) 65.411-8	(309) 24.421-16	(329) 15.943-22
(290) 43.530	(310) 20.777-7	(330) 10.181-26
(291) 30.235	(311) 13.610-26	(331) 11.894-47
(292) 54.728-8	(312) 23.533-28	(332) 13.500
(293) 53.280-5	(313) 25.878-31	(333) 15.659-52
(294) 36.382-6	(314) 12.836-36	(334) 16.576-2
(295) 13.892-2	(315) 23.023-4	(335) 14.695-5
(296) 20.284	(316) 12.449-39	(336) 14.611-5
(297) 22.429-11	(317) 16.549-32	(337) 16.144-40
(298) 40.979-2	(318) 10.921-33	(338) 12.702-43
(299) 28.371-14	(319) 15.335-10	(339) 7.765-22
(300) 18.865-4	(320) 8.627-12	(340) 9.283-3
(301) 29.729-15	(321) 9.111-4	(341) 10.769-14
(302) 30.528-23	(322) 15.451-10	(342) 10.846-4
(303) 24.221-14	(323) 13.005-41	(343) 11.194-12
(304) 15.526-13	(324) 17.156-19	(344) 12.353-21
(305) 24.306-26	(325) 18.885-39	(345) 3.339-24
(306) 31.833-9	(326) 8.652-5	(346) 4.928-51

Exercise LXIX.—Page 60.

15-4	(347) 43.222.803-7	(370) 19.748.753-2
17-4	(348) 64.003.447-10	(371) 25.641.022-34
19-20	(349) 36.238.774-12	(372) 19.847.271-25
14-40	(350) 43.374.348-7	(373) 18.493.245-14
17-24	(351) 27.297.722-7	(374) 14.359.318-3
17-14	(352) 46.381.337-15	(375) 10.727.874-13
18-10	(353) 23.982.284-11	(376) 198.752.588-24
15-30	(354) 47.217.079-10	(377) 22.830.976-25
18-4	(355) 34.273.736-17	(378) 15.444.727
17-50	(356) 23.847.921-1	(379) 19.118.135-4
	(357) 17.809.861-15	(380) 19.171.770-27
	(358) 38.591.045-14	(381) 19.712.867-13
	(359) 42.234.805-5	(382) 17.623.400-27
	(360) 19.030.952-22	(383) 20.370.976-4
	(361) 33.996.299-7	(384) 10.154.683-23
	(362) 29.055.103-1	(385) 12.930.138-45
	(363) 30.159.320-14	(386) 15.528.937-48
	(364) 34.703.708-26	(387) 8.914.800-7
	(365) 29.220.710	(388) 17.268.553-51
	(366) 15.747.900-1	(389) 17.793.944-13
	(367) 30.935.529-6	(390) 14.738.905-6
	(368) 15.024.090-13	(391) 14.806.470-27
	(369) 23.698.225-5	

Exercise LXX: Page 61.—(392) \$126. (393) \$3.90.

(394) 35c. (395) 175 yards. (396) 536 sheep. (397) 3.898 days.

(398) \$12.715 $\frac{10}{11}$ (399) 2982 $\frac{1}{11}$. (400) 16 bottles.

(401) 80; 44; 56 miles.

(402) 10 (403) 39. (404) 25. (405) 14. (406) 4. (407) 9.

(408) 7; (leave out rem. 2 twice.) (409) 81. (410) 105

(leave out rem. 2 once.) (411) 45.

Exercise LXXI.—Page 62.

(412) 16.955.458-22

(415) 12.597.271-32

(413) 13.611.675

(416) 11.237.317-1

(414) 15.428.903-41

(417) 11.760.686-49

- | | |
|---------------------|---------------------|
| (418) 1.877.713-3 | (438) 1.731.708-15 |
| (419) 7.021.784-15 | (439) 9.197.986-38 |
| (420) 10.303.382-59 | (440) 11.341.119-32 |
| (421) 12.166.859-49 | (441) 7.409.499-8 |
| (422) 6.146.587-60 | (442) 8.151.977-54 |
| (423) 1.604.562-19 | (443) 4.606.720-51 |
| (424) 8.682.453-3 | (444) 5.543.265-1 |
| (425) 11.723.256-42 | (445) 1.963.481-45 |
| (426) 1.534.369-43 | (446) 8.789.766-44 |
| (427) 5.076.308-7 | (447) 5.272.350-71 |
| (428) 10.763.717-28 | (448) 4.691.863-27 |
| (429) 4.217.866-69 | (449) 8.718.115-74 |
| (430) 2.172.992-23 | (450) 10.081.428-69 |
| (431) 8.019.690-51 | (451) 7.877.413-43 |
| (432) 2.729.023-59 | (452) 1.118.802-15 |
| (433) 11.636.974-42 | (453) 4.640.196-65 |
| (434) 2.400.104-35 | (454) 5.580.350-1 |
| (435) 10.182.998-60 | (455) 9.171.126-87 |
| (436) 4.340.797-47 | (456) 4.321.717-34 |
| (437) 7.091.059-25 | |

Exercise LXXII.—Page 63.

- | | | |
|-----------------|-----------------|-----------------|
| (457) 1.008-290 | (472) 729-141 | (487) 705-260 |
| (458) 3.551-52 | (473) 3.394-174 | (488) 1.265-290 |
| (459) 4.450-57 | (474) 2.957-51 | (489) 1.954-340 |
| (460) 4.757-106 | (475) 559-81 | (490) 1.459-484 |
| (461) 7.238-35 | (476) 279-585 | (491) 1.496-333 |
| (462) 1.695-484 | (477) 3.357-222 | (492) 1.838-40 |
| (463) 1.227-158 | (478) 1.501-68 | (493) 767-40 |
| (464) 2.920-20 | (479) 636-510 | (494) 834-237 |
| (465) 1.814-36 | (480) 2.130-135 | (495) 589-639 |
| (466) 2.820-21 | (481) 1.005-600 | (496) 1.385-54 |
| (467) 1.351-200 | (482) 1.138-563 | (497) 1.397-287 |
| (468) 1.298-285 | (483) 501-29 | (498) 5.410-12 |
| (469) 4.342-68 | (484) 1.396-91 | (499) 1.108-472 |
| (470) 1.582-287 | (485) 657-871 | (500) 2.266-162 |
| (471) 1.489-171 | (485) 957-99 | (501) 2.767-55 |

(502) 1.251-449	(507) 4.371-71	(512) 1.328-475
(503) 2.340-151	(508) 828-44	(513) 1.716-40
(504) 1.145-14	(509) 538-384	(514) 1.780-290
(505) 1.736-475	(510) 2.251-322	(515) 995-740
(506) 5.033-14	(511) 1.702-163	(516) 1.685-19

Exercise LXXIII.—Page 64.

(517) 3.708.466-141	(540) 1.237.395-342
(518) 1.391.618-278	(541) 909.822-304
(519) 3.799.145-94	(542) 1.122.418-461
(520) 880.247-478	(543) 2.195.304-154
(521) 3.766.991-152	(544) 1.690.717-375
(522) 776.600-51	(545) 2.297.352-223
(523) 1.612.115-241	(546) 1.083.891-160
(524) 176.228-349	(547) 1.842.970-357
(525) 1.424.552-88	(548) 693.438-272
(526) 1.198.264-359	(549) 763.207-603
(527) 4.295.032-110	(550) 1.525.349-135
(528) 937.650-404	(551) 1.536.722-18
(529) 947.315-330	(552) 334.957-660
(530) 1.601.931-250	(553) 942.859-557
(531) 1.453.067-305	(554) 464.507-123
(532) 998.480-131	(555) 791.236-170
(533) 1.048.918-565	(556) 1.636.328-158
(534) 1.458.897-65	(557) 1.969.463-431
(535) 658.589-358	(558) 1.520.927-5
(536) 1.204.447-118	(559) 1.714.751-428
(537) 178.216-223	(560) 1.163.604-445
(538) 924.196-737	(561) 2.676.976-77
(539) 999.270-496	

Exercise LXXIV.—Page 65.

(562) 32.	(563) 105 hhds.
(564) \$120.	(565) 475 A.
(566) 7, 777.	(567) 230 vols.
(568) 147 yds.	(569) \$7.80.
(570) 20 sheep.	(571) \$68.352.
(572) 48.050 gals.	(573) \$14 lost.
(574) 8½ bbls.	(575) 7.901.

Exercise LXXV.—Page 66.

(576)	8.554 - 38091	(599)	27.315 - 149932
(577)	8.901 - 58671	(600)	37.740 - 149404
(578)	18.571 - 4611	(601)	5.848 - 115510
(579)	7.366 - 39546	(602)	19.347 - 121110
(580)	20.960 - 1098	(603)	4.485 - 825914
(581)	31.403 - 7405	(604)	209.304 - 72180
(582)	5.342 - 45540	(605)	16.557 - 99100
(583)	42.756 - 4760	(606)	19.997 - 352630
(484)	4.130 - 20915	(607)	6.871 - 52542
(485)	17.653 - 17742	(608)	47.122 - 45609
(586)	7.850 - 8501	(609)	4.480 - 249581
(587)	35.554 - 17292	(610)	33.488 - 157744
(588)	14.882 - 34439	(611)	5.413 - 818121
(589)	18.911 - 6079	(612)	10.009 - 304191
(590)	6.002 - 61696	(613)	25.177 - 101052
(591)	10.847 - 5266	(614)	4.901 - 207739
(592)	25.808 - 20315	(615)	30.143 - 192052
(593)	19.834 - 23489	(616)	25.259 - 304405
(594)	18.730 - 24137	(617)	6.231 - 574876
(595)	8.935 - 2701	(618)	5.224 - 155932
(596)	30.226 - 6390	(619)	6.887 - 130778
(597)	31.813 - 35284	(620)	17.225 - 46883
(598)	37.595 - 40279		

Exercises LXXVI. and LXXVII. are intended chiefly for blackboard drill, so no answers are given.

Exercise LXXVIII.—Page 67.

(684)	220-32	(692)	734-15	(700)	143.750-4
(685)	360-9	(693)	150	(701)	195.766-6
(686)	1.064-8	(694)	388-13	(702)	274.000-7
(687)	1.350-16	(695)	1.103-32	(703)	217.860-9
(688)	794-25	(696)	791-9	(704)	176.579-8
(689)	971	(697)	410.826-17	(705)	84.918-26
(690)	1.325-46	(698)	253.089-9	(706)	57.893-18
(691)	1.017-24	(699)	389.029-2	(707)	42.754-17

(708) 106.980-47	(713) 153.159-7	(718) 67.798-7
(709) 232.859-19	(714) 123.758-63	(719) 79.383
(710) 81.824-35	(715) 34.393-55	(720) 183.909-22
(711) 69.692-12	(716) 265.052-24	(721) 133.050-22
(712) 147.151-29	(717) 116.426-25	(722) 15.328-32

Exercise LXXIX.—Page 68.—(723) 36 horses and \$50 and 30 horses and \$50 over. (724) 3.566 $\frac{3}{8}$. (725) 5.300.
 (726) 110.670 (727) 1.200 lbs. (728) 9. (729) 443 $\frac{11}{87}$.
 (730) 7 yrs. (731) 575. (732) 105. (733) \$35.260.
 (734) 9.253.764, (735) \$62 gain.

INTRODUCTORY FRACTIONS.

Exercise LXXXII.—Page 70. (15) \$290. (16) \$2.60.
 (17) \$11.25. (18) \$50. (19) \$22.50.

Exercise LXXXIII.—Page 71. (20) \$6.11. (21) \$300.
 (22) \$214.00 $\frac{1}{2}$. (23) 10 cents. (24) \$577.81 $\frac{1}{2}$. (25) \$2614.
 (26) \$65.62 $\frac{1}{2}$. (27) \$625. (28) \$420. (29) \$202.50. (30) 300
 times. (31) \$660. (32) \$2.72 $\frac{3}{4}$.

BILLS.

Exercise LXXXIV.—Pages 72-3. (1) \$448.07. (2) \$12.56.
 (3) \$12.91. (4) \$1593.32 $\frac{1}{2}$. (5) \$8.42.

Exercises LXXXV.-VII.—Pages 74-75. (6) \$11.17.
 (7) \$175.13. (8) \$160.69. (9) \$590.02. (10) \$35.75.
 (11) \$92.40. (12) \$731.69. (13) \$260.11. (14) \$61.13.
 (15) \$13.696.02 $\frac{1}{2}$. (16) \$196.12. (17) \$86.67.

REDUCTION.

Exercise LXXXVIII.—Page 79. (1) 347.500 cents;
 3.475.000 m.; 34.750 d. (2) 6.092 d. (3) 40.499 far. (4) 1.510s.
 (5) 50.253 lbs. (6) 359 in. (7) 1.595 rods. (8) 129.600 cu. in.
 (9) 8.900 min. (10) 998 pts. (11) 3.650 sq. rd. (12) 1.451.520
 cu. in. (13) 30.660 h. (14) 4.076 lbs. (15) 33.984 sq. in.
 (16) 1.520 p. (17) 1.416 h. (18) 1.800 sheets. (19) 54.000 sec.
 (20) 70 things. (21) 91.770 sec. (22) 7.680 cu. ft., 480 cd.ft.

(23) 180 gi. (24) 1.024 pk. (25) 41.760 m.

Exercise LXXX.X.—Page 80. (26) \$48.934 $\frac{3}{4}$, 4893 $\frac{19}{40}$ E.
 (27) £41, 2s. 3d (28) 16s 4 $\frac{1}{2}$ d. (29) £101 15s. 1d.
 (30) 38 yds. 8 in. (31) 28 per. 1 yd. 2 ft. (32) 6 cu.
 yds. 2 cu. ft., 1568 cu. in. (33) 405 gal. 3qt. 1 pt.
 (34) 52 bu. 3 pk. 1 qt. (35) 94 qt. 1 pt. (36) 674 lbs. 12 oz
 (37) 18 cwt. 76 lbs or $\frac{469}{500}$ ton. (38) 8 h. 17 min. 22 sec.
 (39) 16 min. 40 sec., or $\frac{16}{18}$ degrees. (40) 75 w. 3 d. 17 h.
 9 min. 34 sec. (41) 601 C. 55 cu. ft. (42) 26 hhds. 4 gal. 1 pt.
 (43) 165 A. 2 R. 20 rd. (44) 162 miles 6 fur. 20 rd
 (45) 6 bbbs. 3 qt. 1 p. 2 gi. (46) 5 miles, 4 rd. 5 yd. 2 ft.
 4 in. (47) 12 gross. (48) 302 score. (49) 105 rd. 1 ft. 6 in.
 (50) 23 reams 2 quires 23 sheets, or 23 $\frac{771}{480}$ reams. (51) 1 sq. mile
 45 A. 3 R. 25 rd. 24 yds. 7 ft. 108 in. (52) 21° 56 min.
 (53) 9 Y. 1 w. 6 d. 6 h. (54) 16 hands. (55) 22 fur. 25 rd.
 4 yd. 2 ft. 1 in.

Exercise XC. Miscellaneous.—Page 81 (56) 787.900 cts. ;
 7.879.000 m. (57) \$2.894.27 ; 28.942 d. 7 cts. ; 289 E.
 \$4.27. (58) 72.600 far. (59) £46 18s. 5d. (60) 2.432.288 oz.
 (61) 83 tons 11 cwt. 93 lbs. (62) 1.642.920 in. (63) 33 m.
 33 rd. 3 yds, 1 ft. 6 in. (64) 1.584.000.000 in.
 (65) 17.708.097 ft. (66) 5c° 66 m. 2 fur. 2 rd. 4 yd. 1 ft.
 (67) 384.904 $\frac{1}{2}$ sq. ft. (68) 9 A. 2 R. 36 rd. 18 yd. 6 ft.
 (69) 3.200 cu. ft. 200 cd. ft. (70) 2016 gi. (71) 365 gal. 1 qt.
 (72) 3.559.040 sec. (73) \$10.80. (74) \$42. (75) \$36.26
 cost of sugar, \$43.75 cost of apples, \$80.01 cost of both,
 \$7.49 difference. (76) \$69.828. (77) \$16.635.

Exercise XCI.—Page 82. (78) 30 yd. ; \$40.50 cost.
 (79) 4.000 sq. rd ; 25 A. ; \$5.893.75 cost. (80) \$248.40
 (81) 11.845.833 times. (82) 6.144 shingles. (83) 140.659 $\frac{1}{6}$
 times. (84) \$20.40 $\frac{1}{12}$. (85) \$36.125 gain. (86) \$153.02.
 (87) \$8.36. (88) 728 cu. ft. 5 $\frac{1}{16}$ cd. (89) 4.875 sq. rd. ; 30 A.
 1 R. 35 rd.

Exercise XCII.—Page 83. (90) \$3,168. (91) 90yrs.
 (92) \$12,01 $\frac{1}{2}$ (93) \$5,25. (94) \$24,75. (95) \$750. (96) \$16,35.
 (97) 127 $\frac{2}{5}$ pts. (98) 1.080. (99) 1.152 miles. (100) \$2,49.
 (101) 27,000 lbs., 137 $\frac{37}{49}$ bbls. (102) \$86,40. (103) 60 boxes.
 (104) \$2,520. (105) \$9,266,40.

Exercise XCIII.—Page 84. (1) £27 11s. 5 $\frac{1}{2}$ d. (2) £30.
 8s. 3d. (3) £129 10s. 8 $\frac{3}{4}$ d. (4) 217 tons 76 lbs. 10 oz. 6 dr.
 (5) 102 tons 50 lbs. 5 oz. 4 dr. (6) 128 tons 111 lbs. 15 dr.
 (7) 205 deg. 8 m. 1 fur. 17 rd. 15 ft. 2 in. (8) 74 m. 5 fur.
 3 yd. 1 ft. (9) 279 A. 3 R. 6 P. 121 ft. 102 in. (10) 162 A.
 17 yds. 119 in.

Exercise XCIV.—Page 85. (11) 314 cu. yd., 17 cu. ft.
 1.164 cu. in. (12) 223 C. 110 cu. ft. 1,454 cu. in. (13) 475 C.
 37 cu. ft. 488 cu. in. (14) 14 hhd. 25 gal 3 qt. (15) 115 bu.
 1 pk. 2 qt. (16) 91 bu. 3 pk. 1 qt. 1 pt. (17) 203 yrs.
 237 d. 4 h. 30 m. 56 sec. (18) 146 yrs. 26 d. 23 h. 38 min.
 49 sec. (19) 42 S. 11° 56' 54". (20) 37 S. 20° 36' 21".

Exercise XCV.—Page 86. (21) 126 tons 71 lb. 5 oz.
 (22) 6 tons 55 lbs. (23) 181 m. 2 fur. 18 rd. 9 ft 3 in.
 (24) 107 bus. 1 pk. 5 qts. 1 pt. (25) 574 A. 3 R. 20 P. 12 $\frac{1}{2}$ ft.
 (26) 58 C. 82 ft. 860 in. (27) 586 gal. 2 qt. 1 pt. (28) 45 Y.
 2 mos. 5 d. (29) 436 Y. 290 d. 20 h. 44 m. 16 sec.
 (30) 3576 bus. 3 pk. 1 gal. 1 qt. 1 pt.

Exercise XCVI.—Page 87. (1) £26 18s. 1 $\frac{3}{4}$ d. (2) £48
 18s. 10 $\frac{3}{4}$ d. (3) £49 10s. $\frac{3}{4}$ d. (4) 97 T. 1987 lb. 14 oz. 15 dr.
 (5) 1 T. 1999 lb. 3 oz. 14 dr. (6) 1999 lb. 15 oz. 11 dr.
 (7) 72 T. 32 ft. 1,494 in. (8) 371 C. 126 ft. 1,683 in. (9) 18 gal.
 2 qt. 0 pt. 2 gi. (10) 11 gal. 1 qt. 0 pt. 3 gi. (11) 1094 gal
 3 qt. 0 pt. 3 gi. (12) 238 Y. 136 d. 17 h. 22 m. 38 sec.
 (13) 22 Y. 362 d. 8 h. 45 m. 37 sec. (14) 2 S. 12 deg. 0 m.
 41 sec. (15) 1 S. 23° 55' 51".

Exercise XCVII.—Page 88. (16) 9 Y. 9 mo. 15 d.
 (17) £5942 7s. 6d. (18) 45 T. 1980 lb. 2 oz. (19) 16m.
 3 fur. 21 rd. 2 ft. 10 in. (20) 126 A. 1 R. 22 p. 71 ft. 80 in.

- (21) 14 C. 27 cu. ft. 728 cu. in. (22) 11 T. 21 ft. 963 cu. in.
 (23) 92 gal. 0 qt. 1 pt. (24) 35 Y. 1 mo. 2 d. 5 hr. 9 m. 46 s.
 (25) 12 Y. 8 m. 5 d. (26) May 27th, 1878. (27) Dec. 9th,
 1608. (28) 1 Y, 9 mo. 23 d.

- Exercise XCVIII**—Page 89. (1) £30 11s. 4½d.
 (2) £58 14s. 10½d. (3) £129 9s. 10¾d. (4) 169 cwt. 5 lb.
 12 oz. (5) 163 T. 5 cwt. 84 lb. (6) 232 cwt. 71 lb. 8 oz.
 (7) 233 lb. 5 oz. 5 dr. (8) 527 m. 4 fur. 8 rd. 12 ft.
 (9) 225 deg. 32 m. 7 fur. 24 rd. (10) 303 rd. 2 yd. 0 ft. 9 in.
 (11) 1.933 m. 524 yd. 1 ft. (12) 298 fur. 0 rd. 4 ft. 2 in.
 (13) 5-346 cu. yd. 16 ft. 949 in. (14) 9.240 cu. yd. 16 ft. 1188 in.

- Exercise XCIX**—Page 90. (15) £15 18s 9d. (16) 111 m.
 4 fur. 41 yds. (17) 21 T. 5 cwt. 52 lb. (18) 478 gal. 2 qt.
 (19) 34 A. 0 R. 32 P. 8 yd. 5 ft. 48 in. (20) 24 C. 105 ft.
 (21) £57 10s. (22) £862 10s. (23) 117 m. 7 fur. 20 rd.
 (24) 168 T. 1512 lb. (25) 1095 lb. 14 oz. 6 dr. (26) 662 m.
 4 fur. 28 rd. 3 yd. 2 ft. 2 in. (27) 2739 bus. 1 pk. 5 qt.
 (28) 249 A. 0 R. 23 P. 6 yd. 2 ft. 108 in. (29) 7986 T.
 2 cwt. 1 qr, 18 lb. 12 oz.

COMPOUND DIVISION.

- Exercise C**—Page 91. (1) £6 6s. 8d. (2) £22 18s. 3d.
 (3) £25 9s. 11d. (4) £19 9s. 0¾d. (5) 18 cwt. 84 lb. 6½ oz.
 (6) 14 tons 15 cwt. 87 lb. (7) 15 lb. 14 oz. 13 dr. (8) 97 m.
 7 fur. 14 rd. 13 ft. (9) 9 fur. 32 rd. 5 in. (10) 18 deg. 12m.
 6 fur. 31⁵/₁₈ rd. (11) 23 rd. 3 yd. 2 ft. 9 in. (12) 20m. 1 fur.
 84 yd. (13) 12 bus. 3 pk. 4½ qt. (14) 28 bus. 1 pk. 1 gal. 1¾ qt.
 (15) 379 C. 100 ft. (16) 17 A. 1 R. 27 p. 6 yd. 62½ in.

- Exercise CI**—Page 92. (17) 18s. 9d. (18) 12 m. 3 fur.
 29 rd. (19) 2 T. 13 cwt. 15½ lb. (20) 7 T. 37 ft. (21) 114 bus.
 2 pk. 7½ qt. (22) £2 7s. 11d. (23) £35608 6s. 8d.
 (24) 3 m. 7 fur. 18rd. (25) 2 T. 7 cwt. 93 lb. (26) 7⁷/₈ yd.
 (27) 3²⁷/₈ yds. (28) £6 16s. 10¹/₅ d. (29) 17 lb. 10²⁵/₃₁ oz.
 (30) 27 bus. 3 pks. 6½ qt. (31) 13 A. 3 R. 14 p. 18 yd. 7 ft.
 76 in.

Exercise CII.—Page 93. (1) £56 10s. (2) 1 Y. 10 mo. 17 days. (3) 514 m. 20 rd. (4) 12 m. 3 fur. 19 rds. (5) 24 A. 130 sq. rd. (6) 1 C. 2 c. ft. 5 cu. ft. (7) £4 2s. 4d. (8) 5° 2' 49½" (9) \$36.72. (10) 79 lbs. (11) \$1787.04. (12) 313 m. 7 fur. 24 rd. (13) \$770.82½; \$545.07½. (14) 12½ c.

Exercise CIII.—Page 94. (15) 19 brls. (16) Ped. 40 Stage 160, Car 800. (17) 3 hours. (18) 10 m. 3 fur.; 114 m. 1 fur. (19) 13s. 5 $\frac{5}{2}$ d; £36 7s. 9½d. (20) 36 bus. of rye (21) 922 bus. (22) 160 A. 15 P. (23) 18 mi. 180 rd. (24) 2 R. 15 per. (25) 524 sq. rd. (26) 324 A. 3 R. 20 sq. rd.

Exercise CIV.—Page 95. (27) \$15.12. (28) 25344 steps. (29) \$34. (30) 31 bus. 3 pk. 1 gal. (31) 2880 cu. ft. (32) 192 bbls. (33) 1280 rds. (34) 4725 lbs. (35) Cost 3½c. each, gain \$131.70. (36) 50 yds. (37) 20 times. (38) \$308.16. (39) 3 Y. 3 days. 12 min. (40) \$26.50 gain.

CANCELLATION.

Exercise CV.—Page 96. (4) 4. (5) 12. (6) $\frac{8}{15}$. (7) 6. (8) $\frac{2}{19}$. (9) 17½. (10) 12½. (11) 4. (12) 6. (13) 15 (14) 8 $\frac{18}{17}$ (15) 1 $\frac{17}{18}$. (16) 53½. (17) 60. (18) 61. (19) 14839.

Exercise CVI.—Page 97. (20) 12. (21) 37½. (22) 72. (23) 6. (24) 20. (25) 24. (26) 56. (27) 6¾. (28) 68. (29) \$2.40

MISCELLANEOUS.

Exercise CVII.—Page 98. (1) 264938. (2) 14. (3) \$573¾. (4) 8½. (5) \$7.50 and \$11.50. (6) \$163 and \$313. (7) \$625. and \$375. (8) Jno. 47, Jos. 42, Jas. 31. (9) 285 A. 1 R. 10 yd.

Exercise CVIII.—Page 99. (10) 430. (11) 358. (12) 7.353.632. (13) 5179. (14) \$45 more. (15) \$27.25. (16) \$21.28 gain. (17) Wheat \$1265.20. (18) \$3252.80. (19) \$20.78. (20) 73 bus.

Exercise CIX.—Page 100. (21) \$2.35 per bbl. (21) 321 $\frac{89}{41}$ (23) 150 yds. (24) \$33.33¾; 266 cu. yd. 18 cu. ft. (25) \$1.25. (26) \$30.24. (27) 447 $\frac{3}{151}$. (28) 70 times. (29) 35 C. 8 cu. ft. (30) \$10.57+. (31) 88 doz. (32) \$67.63. (33) \$169.86½.

MULTIPLICATION TABLE.

MULTIPLICATION is the process of taking one number as many times as there are units in another.

The Product is the result obtained.

Once	1	is	1	2 times	1	are	2	3 times	1	are	3
Once	2	is	2	2 times	2	are	4	3 times	2	are	6
Once	3	is	3	2 times	3	are	6	3 times	3	are	9
Once	4	is	4	2 times	4	are	8	3 times	4	are	12
Once	5	is	5	2 times	5	are	10	3 times	5	are	15
Once	6	is	6	2 times	6	are	12	3 times	6	are	18
Once	7	is	7	2 times	7	are	14	3 times	7	are	21
Once	8	is	8	2 times	8	are	16	3 times	8	are	24
Once	9	is	9	2 times	9	are	18	3 times	9	are	27
Once	10	is	10	2 times	10	are	20	3 times	10	are	30
Once	11	is	11	2 times	11	are	22	3 times	11	are	33
Once	12	is	12	2 times	12	are	24	3 times	12	are	36

4 times	1	are	4	5 times	1	are	5	6 times	1	are	6
4 times	2	are	8	5 times	2	are	10	6 times	2	are	12
4 times	3	are	12	5 times	3	are	15	6 times	3	are	18
4 times	4	are	16	5 times	4	are	20	6 times	4	are	24
4 times	5	are	20	5 times	5	are	25	6 times	5	are	30
4 times	6	are	24	5 times	6	are	30	6 times	6	are	36
4 times	7	are	28	5 times	7	are	35	6 times	7	are	42
4 times	8	are	32	5 times	8	are	40	6 times	8	are	48
4 times	9	are	36	5 times	9	are	45	6 times	9	are	54
4 times	10	are	40	5 times	10	are	50	6 times	10	are	60
4 times	11	are	44	5 times	11	are	55	6 times	11	are	66
4 times	12	are	48	5 times	12	are	60	6 times	12	are	72

7 times	1	are	7	8 times	1	are	8	9 times	1	are	9
7 times	2	are	14	8 times	2	are	16	9 times	2	are	18
7 times	3	are	21	8 times	3	are	24	9 times	3	are	27
7 times	4	are	28	8 times	4	are	32	9 times	4	are	36
7 times	5	are	35	8 times	5	are	40	9 times	5	are	45
7 times	6	are	42	8 times	6	are	48	9 times	6	are	54
7 times	7	are	49	8 times	7	are	56	9 times	7	are	63
7 times	8	are	56	8 times	8	are	64	9 times	8	are	72
7 times	9	are	63	8 times	9	are	72	9 times	9	are	81
7 times	10	are	70	8 times	10	are	80	9 times	10	are	90
7 times	11	are	77	8 times	11	are	88	9 times	11	are	99
7 times	12	are	84	8 times	12	are	96	9 times	12	are	108

10 times	1	are	10	11 times	1	are	11	12 times	1	are	12
10 times	2	are	20	11 times	2	are	22	12 times	2	are	24
10 times	3	are	30	11 times	3	are	33	12 times	3	are	36
10 times	4	are	40	11 times	4	are	44	12 times	4	are	48
10 times	5	are	50	11 times	5	are	55	12 times	5	are	60
10 times	6	are	60	11 times	6	are	66	12 times	6	are	72
10 times	7	are	70	11 times	7	are	77	12 times	7	are	84
10 times	8	are	80	11 times	8	are	88	12 times	8	are	96
10 times	9	are	90	11 times	9	are	99	12 times	9	are	108
10 times	10	are	100	11 times	10	are	110	12 times	10	are	120
10 times	11	are	110	11 times	11	are	121	12 times	11	are	132
10 times	12	are	120	11 times	12	are	132	12 times	12	are	144

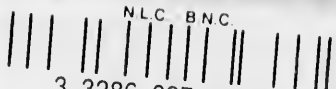
DIVISION TABLE.

DIVISION is the process of finding how many times one number is contained in another of the same kind.

THE QUOTIENT is the result obtained, and shows how many times the divisor is contained in the dividend.

1 in 2 2 times 1 in 3 3 times 1 in 4 4 times 1 in 5 5 times 1 in 6 6 times 1 in 7 7 times 1 in 8 8 times 1 in 9 9 times	2 in 4 2 times 2 in 6 3 times 2 in 8 4 times 2 in 10 5 times 2 in 12 6 times 2 in 14 7 times 2 in 16 8 times 2 in 18 9 times	3 in 6 2 times 3 in 9 3 times 3 in 12 4 times 3 in 15 5 times 3 in 18 6 times 3 in 21 7 times 3 in 24 8 times 3 in 27 9 times
4 in 8 2 times 4 in 12 3 times 4 in 16 4 times 4 in 20 5 times 4 in 24 6 times 4 in 28 7 times 4 in 32 8 times 4 in 36 9 times	5 in 10 2 times 5 in 15 3 times 5 in 20 4 times 5 in 25 5 times 5 in 30 6 times 5 in 35 7 times 5 in 40 8 times 5 in 45 9 times	6 in 12 2 times 6 in 18 3 times 6 in 24 4 times 6 in 30 5 times 6 in 36 6 times 6 in 42 7 times 6 in 48 8 times 6 in 54 9 times
7 in 14 2 times 7 in 21 3 times 7 in 28 4 times 7 in 35 5 times 7 in 42 6 times 7 in 49 7 times 7 in 56 8 times 7 in 63 9 times	8 in 16 2 times 8 in 24 3 times 8 in 32 4 times 8 in 40 5 times 8 in 48 6 times 8 in 56 7 times 8 in 64 8 times 8 in 72 9 times	9 in 18 2 times 9 in 27 3 times 9 in 36 4 times 9 in 45 5 times 9 in 54 6 times 9 in 63 7 times 9 in 72 8 times 9 in 81 9 times
10 in 20 2 times 10 in 30 3 times 10 in 40 4 times 10 in 50 5 times 10 in 60 6 times 10 in 70 7 times 10 in 80 8 times 10 in 90 9 times	11 in 22 2 times 11 in 33 3 times 11 in 44 4 times 11 in 55 5 times 11 in 66 6 times 11 in 77 7 times 11 in 88 8 times 11 in 99 9 times	12 in 24 2 times 12 in 36 3 times 12 in 48 4 times 12 in 60 5 times 12 in 72 6 times 12 in 84 7 times 12 in 96 8 times 12 in 108 9 times

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