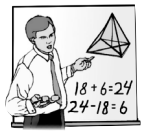
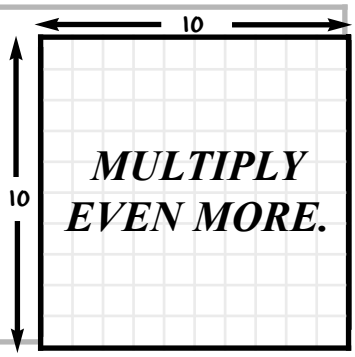
Basic Math Skills



Lesson 9

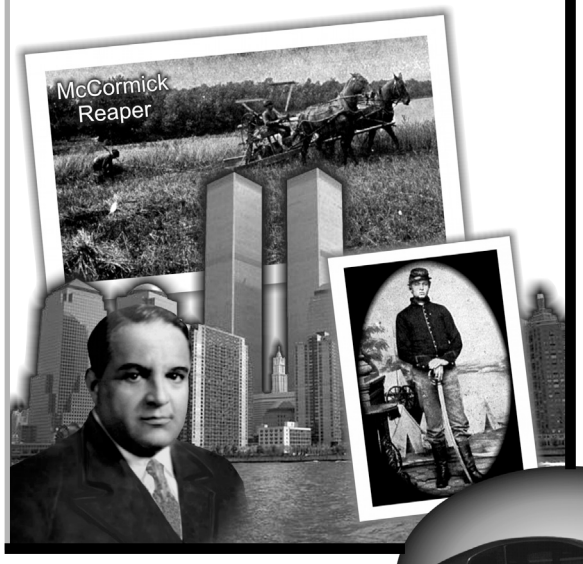
Fundamentals

Chapter 1



Section 2

Lessons 6-10



Professor K

The Industrial Revolution is said to have ended in the early 1900s. So many new ***inventions*** had been produced that the director of the ***U.S. Patent Office*** suggested that the office could be closed because nothing remained to be invented. However, inventors continued to place numerous inventions on the market daily to make life easier and more convenient. Professor K sometimes thought about inventing good, useful products. He pursued some of his ideas to make them reality. That is what inventors do; they make their dreams reality. Even if you do not become an inventor, the dreams you have for life can become reality if you work hard and do not lose your vision. Inventions are always the result of dreams.

This lesson is a continuation of Lesson 8, with the addition of the numbers 7-12 included in the multiplication table. The following multiplication facts, as well as those in Lesson 8, should be memorized. This will make multiplication, and math in general, much easier. The numbers to the left of an equal sign are factors of the product to the right of the equal sign. The same rules and principles apply for these multiplications as in Lesson 8. Professor K reminds you that you will be required to memorize and quote the multiplication facts from Lessons 8 and 9 before you proceed to Lesson 10.

VOCABULARY

Inventions: things created that had not previously been made
U.S. Patent Office: place where descriptions of inventions are recorded by inventors and kept in government files
Red Cross: an international organization that helps people who suffer from disasters such as wars, earthquakes or severe weather

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Table 9.1

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

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

Study the following example using the multiplication facts for the numbers *7-12*. In this example, Professor K shows you how to find the answer to the following problem.

Example Set 1

Seven ***Red Cross*** volunteers worked *41* hours each to help victims rescued from the rubble of the Twin Towers. How many hours did the volunteers work altogether?

Step 1

$$\begin{array}{r} 41. \\ \times\ 7. \\ \hline \end{array}$$

In this problem you are asked to multiply *41* by seven. Adding *41* to itself *7* times would produce the answer; however, multiplication would produce the answer faster. (See Step 1.)

Step 2

$$\begin{array}{r} 41. \\ \times\ 7. \\ \hline 7. \end{array}$$

To begin to work a multiplication problem such as this, the numbers in the *ones* column are multiplied together first. In this example $7 \times 1 = 7$. The *7* is placed in the *ones* position of the answer. (See Step 2.)

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Step 3

41.
× 7.
287.

The next step to solve this multiplication problem is to multiply *7* times *4* (*7 × 4 = 28*). The answer to this smaller multiplication problem is *28*. The *8* is placed in the product (answer) in the *tens* column and the *2* is now carried to the *hundreds* column. Since there is no other number in the *hundreds* place, the *2* is placed in the answer as shown. This makes the product of *41 × 7 = 287*. (See Step 3.)

Practice your multiplication skills by working the activities for this lesson.

LIFE PRINCIPLE

"TELL ME WITH WHOM YOU GO, AND I'LL TELL YOU WHAT YOU ARE."

—Irish Proverb

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