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Introduction

Multiplication and Division 3–4 contains ready-to-use activity pages designed to provide extra math skills practice based on the National Council of Teachers of Mathematics (NCTM) standards. These fun, engaging activities can be used to supplement and enhance what you are already teaching in your classroom. Give an activity page to students as independent class work, or send the pages home as homework to reinforce skills taught in class. An answer key is included at the end of the book as a convenient reference.

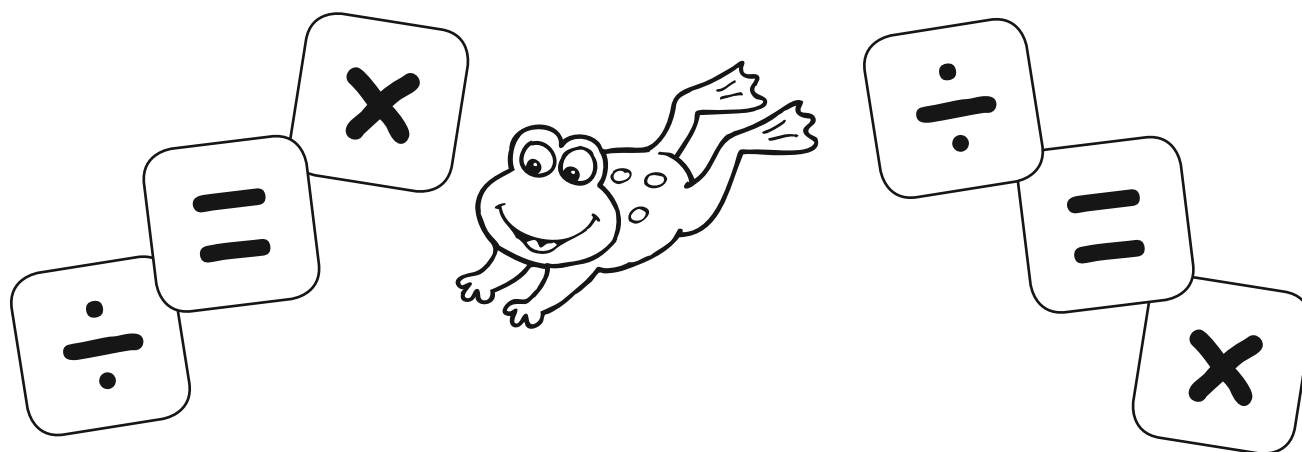
A multiplication table is provided at the beginning of the book. This can be used to help students individualize learning and mastery of facts. Have students begin by filling in as much of the table as they can without help or counting. The filled-in answers show the math facts they have already mastered. The blank spaces on the table indicate the facts they still need to practice for automaticity. Students can then make their own flash cards or blank fact sheets to use for practice. The completed multiplication table can also be used for reference for the Coin Toss Game at

the end of the book. This easy-to-play game challenges students to apply different math strategies to win.

As students work through the activities in this book, they will receive reinforcement in the following skills:

- ✍ multiplication with and without regrouping
- ✍ commutative property
- ✍ associative property
- ✍ inverse operations
- ✍ division with and without remainders
- ✍ division using estimation
- ✍ multiplication and division word problems
- ✍ multiplying three-digit numbers and more

Use *Multiplication and Division 3–4* to reinforce or extend math concepts and skills. “Recharge” skill review with the ready-to-go activities in this book, and give students the power to succeed!



Create Your Own Multiplication Table

Fill in the chart to make your own multiplication table.

×	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Repeated Addition Superhero

A superhero has special powers that save the day. Multiplication is the “superhero” of addition; its special powers save time when repeated addition is needed.

Problem: $\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$ $2 + 2 + 2 + 2 = 8$ 4 sets of two: $\begin{array}{r} 2 \\ 2 \\ 2 \\ 2 \\ + 2 \\ \hline 8 \end{array}$ $4 \times 2 = 8$

Multiply the following numbers. Show the addition problem.

1 S $\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$
6

2 D $\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$

3 P $\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$

4 N $\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$

5 U $\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$

6 F $\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$

7 E $\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$

8 I $\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$

9 B $\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$

10 T $\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$

11 M $\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$

12 G $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$

13 C $\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$

14 A $\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$

15 R $\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$

Use your answers to find the name of Sam’s favorite superhero. Write the letter that goes with each answer on the lines below. The first one is done for you.

S _____
6 45 30 7 16 9 35 32

Multiplication Maze: Facts 0–5

The corn is multiplying. Get out of the maze before more corn grows. First, complete the problems below by filling in the boxes. Then, find your way out of the maze by following the numbers in order from 1 to 9. Connect the numbers to create a path that goes right, left, down or diagonally. The first problem is done for you.

<div>1</div> <div>START</div>	$\begin{array}{r} 2 \\ \times 1 \\ \hline 2 \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \square \end{array}$	$\begin{array}{r} \square \\ \times 5 \\ \hline 35 \end{array}$	$\begin{array}{r} 7 \\ \times \square \\ \hline 21 \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline \square \end{array}$
	$\begin{array}{r} 0 \\ \times 4 \\ \hline \square \end{array}$	$\begin{array}{r} 6 \\ \times \square \\ \hline 12 \end{array}$	$\begin{array}{r} \square \\ \times 4 \\ \hline 12 \end{array}$	$\begin{array}{r} 5 \\ \times \square \\ \hline 15 \end{array}$	$\begin{array}{r} \square \\ \times 1 \\ \hline 9 \end{array}$
	$\begin{array}{r} 6 \\ \times \square \\ \hline 18 \end{array}$	$\begin{array}{r} \square \\ \times 5 \\ \hline 10 \end{array}$	$\begin{array}{r} \square \\ \times 5 \\ \hline 30 \end{array}$	$\begin{array}{r} 2 \\ \times \square \\ \hline 8 \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \square \end{array}$
	$\begin{array}{r} 5 \\ \times \square \\ \hline 40 \end{array}$	$\begin{array}{r} \square \\ \times 4 \\ \hline 28 \end{array}$	$\begin{array}{r} 9 \\ \times 0 \\ \hline \square \end{array}$	$\begin{array}{r} 5 \\ \times \square \\ \hline 25 \end{array}$	$\begin{array}{r} 9 \\ \times 4 \\ \hline \square \end{array}$

$3 \times 3 = \square$ You did it!

Commutative Property

The **commutative property** of multiplication means that when you multiply two numbers, it doesn't matter which one comes first; the product is the same.

For example: $2 \times 6 = 6 \times 2$ $2 \times 6 = 12$ and $6 \times 2 = 12$

Complete each number sentence.

① $3 \times 2 = 2 \times \underline{\quad}$ $4 \times 5 = \underline{\quad} \times 4$ $2 \times 7 = 7 \times \underline{\quad}$

② $8 \times 1 = 1 \times \underline{\quad}$ $0 \times 3 = \underline{\quad} \times 0$ $3 \times 4 = 4 \times \underline{\quad}$

Fill in the blanks to complete each number sentence. The first one has been done for you.

③ $\underline{5} \times 2 = 2 \times 5$ ④ $\underline{\quad} \times 3 = 3 \times 8$ ⑤ $1 \times \underline{\quad} = 9 \times 1$

$5 \times 2 = \underline{10}$

$8 \times 3 = \underline{\quad}$

$1 \times 9 = \underline{\quad}$

$2 \times \underline{5} = \underline{10}$

$3 \times \underline{\quad} = \underline{\quad}$

$9 \times \underline{\quad} = \underline{\quad}$

⑥ $9 \times 2 = 2 \times \underline{\quad}$

⑦ $4 \times 6 = \underline{\quad} \times 4$

⑧ $\underline{\quad} \times 3 = 3 \times 7$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

- ⑨ Olivia has 3 shelves in her room. On each shelf there are 8 stuffed animals. How many stuffed animals does Olivia have altogether? Write the problem, and find the answer.

- ⑩ What if Olivia had 8 shelves in her room and 3 stuffed animals on each shelf. Would the answer be the same? Why or why not?

Associative Property

The **associative property** means that when you multiply three or more numbers, it does not matter how they are grouped; the product is the same.

For example: $(2 \times 4) \times 3 = 2 \times (4 \times 3)$
 $8 \times 3 = 2 \times 12$
 $24 = 24$

Complete the multiplication problems. Always work in the parentheses first.

1 $2 \times (6 \times 3) = (2 \times 6) \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2 $(5 \times 4) \times 2 = \underline{\hspace{2cm}} \times (4 \times 2)$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3 $\underline{\hspace{2cm}} \times (1 \times 5) = (7 \times 1) \times 5$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4 $3 \times (\underline{\hspace{2cm}} \times 6) = (3 \times 4) \times 6$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5 $(9 \times 2) \times 3 = 9 \times (\underline{\hspace{2cm}} \times 3)$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6 $4 \times (3 \times \underline{\hspace{2cm}}) = (4 \times 3) \times 5$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

- 7 Max has 3 dogs. He feeds each dog 1 cup of dog food 2 times a day. How many cups of food does Max need each day to feed all of his dogs? Write the problem, and find the answer.

- 8 Zoe has 2 cats. She feeds each cat 3 cups of food 1 time a day. How many cups of food does Zoe need each day to feed her cats? Is it the same amount Max needs? Why or why not?

The Magic of Zero and One

The numbers 0 and 1 have special properties in multiplication.

Zero does work like magic:

Any number multiplied by 0 = 0

0 multiplied by any number = 0

Example: $9 \times 0 = 0$ $0 \times 257 = 0$

One is magic too!

Any number multiplied by 1 = itself

1 multiplied by any number = itself

Example: $9 \times 1 = 9$ $1 \times 257 = 257$

Complete the multiplication problems.

$$\textcircled{1} \quad \frac{\quad}{s} \times 1 = 0$$

$$\underline{\quad\quad\quad} \times 4 = 0$$

B

$$10 \times 0 = \underline{\hspace{2cm}}$$

E

$$9 \times 0 = \underline{\hspace{2cm}}$$

N

2 $8 \times \frac{\quad}{R} = 8$

$$\underline{\quad\quad\quad} \times 7 = 0$$

$$3 \times 0 = \underline{\hspace{2cm}}$$

K

$$2 \times \frac{\quad}{G} = 2$$

③ $\frac{\quad}{0} \times 1 = 4$

$$5 \times \frac{\quad}{\mathbf{D}} = 0$$

$$0 \times 9 = \underline{\quad\quad\quad}$$

M

$$3 \times 1 = \underline{\quad\quad\quad}$$

T

4 $1 \times \frac{\quad}{H} = 10$

$$\frac{\quad}{J} \times 2 = 0$$

$$1 \times 0 = \underline{\hspace{1cm}}$$

$$5 \times 1 = \underline{\hspace{2cm}}$$

P

5 $6 \times 1 = \underline{\hspace{2cm}}$
A

$$\frac{\quad}{R} \times 6 = 0$$

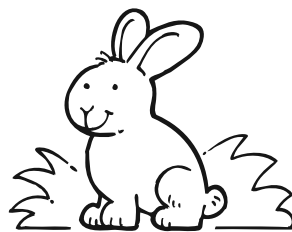
$$8 \times 0 = \underline{\hspace{2cm}}$$

F

$$9 \times 1 = \underline{\quad\quad}$$

Look for your answers that were not 0. Then use the letters beneath those problems to fill in the lines below.

Where does the magician keep his rabbit?

$$\frac{T}{9} \quad \frac{\quad}{4} \quad \frac{\quad}{5} \quad \frac{\quad}{10} \quad \frac{\quad}{6} \quad \frac{\quad}{3}$$


Magic Squares: Multiplying by 10

Multiply the numbers in the middle of the square. Then add the products. All four circles will have the same sum! Look at the example. Then complete the other magic squares. The last square is empty. Make a magic square of your own.

Hint: When you multiply by 10, there is always a zero in the one's place: $10 \times 2 = 20$.

1

(80)	60 + 20	(80)
20	10 × 2	20
+	×	+
60	6 × 10	60
(80)	60 + 20	(80)

2

○	+	○
	4 × 10	
+	×	+
	10 × 9	
○	+	○

3

○	+	○
	10 × 10	
+	×	+
	5 × 10	
○	+	○

4

○		○
	3	10
	10	7
○		○

5

○		○
	10	8
	1	10
○		○

6

○		○
	11	10
	10	4
○		○

7

○		○
	10	12
	6	10
○		○

8

○		○
	5	10
	10	7
○		○

9

○		○
○		○

Two-Digit Multiplication without Regrouping

A. Multiply the ones:

$$\begin{array}{r} 12 \\ \times 3 \\ \hline 6 \end{array} \quad 3 \times 2 = 6$$

B. Multiply the tens:

$$\begin{array}{r} 12 \\ \times 3 \\ \hline 36 \end{array} \quad 3 \times 1 = 3$$

The product is 36.

Solve the multiplication problems. Remember to multiply the ones place first.

$$\begin{array}{r} 1 \quad 33 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 41 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 58 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 22 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 21 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 43 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 31 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 44 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 11 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 30 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 6 \\ \hline \end{array}$$

- 6 Jacob and his brother caught 3 frogs. Each frog laid 22 eggs. If all of the eggs hatch, how many tadpoles will Jacob and his brother have? Find and circle the multiplication problem above that answers this question.

