

Name \_\_\_\_\_

# Multiplying Multiples of Ten

P 6-1

Multiply. Use mental math.

- |                               |                               |
|-------------------------------|-------------------------------|
| 1. $4 \times 30 =$ _____      | 2. $5 \times 90 =$ _____      |
| 3. $9 \times 200 =$ _____     | 4. $6 \times 500 =$ _____     |
| 5. $3 \times 600 =$ _____     | 6. $8 \times 6,000 =$ _____   |
| 7. $90 \times 70 =$ _____     | 8. $70 \times 400 =$ _____    |
| 9. $60 \times 8,000 =$ _____  | 10. $30 \times 800 =$ _____   |
| 11. $90 \times 5,000 =$ _____ | 12. $30 \times 4,000 =$ _____ |

13. **Number Sense** How many zeros are in the product of  $60 \times 9,000$ ? Explain how you know.

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Truck A can haul 4,000 lb in one trip. Truck B can haul 3,000 lb in one trip.

14. How many pounds can Truck A haul in 9 trips? \_\_\_\_\_
15. How many pounds can Truck B haul in 50 trips? \_\_\_\_\_

## Test Prep

16. How many pounds can Truck A haul in 70 trips?
- A. 280                      B. 2,800                      C. 28,000                      D. 280,000

17. **Writing in Math** There are 9 players on each basketball team in a league. Explain how you can find the total number of players in the league if there are 30 teams.

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Name \_\_\_\_\_

# Estimating Products

P 6-2

Estimate each product.

1.  $38 \times 29$  \_\_\_\_\_

2.  $71 \times 47$  \_\_\_\_\_

3.  $54 \times 76$  \_\_\_\_\_

4.  $121 \times 62$  \_\_\_\_\_

5.  $548 \times 28$  \_\_\_\_\_

6.  $823 \times 83$  \_\_\_\_\_

7.  $67 \times 289$  \_\_\_\_\_

8.  $183 \times 34$  \_\_\_\_\_

Estimate each product by finding a range.

9.  $28 \times 87$

10.  $673 \times 85$

\_\_\_\_\_

\_\_\_\_\_

The distance between San Francisco, California, and Salt Lake City, Utah, is 752 miles.

11. Find a range for the number of miles a car would drive if it made 15 trips.

12. About how many miles would a car drive if it made 42 trips?

\_\_\_\_\_

\_\_\_\_\_

## Test Prep

13. Vera has 8 boxes of paper clips. Each box has 275 paper clips. About how many paper clips does Vera have?

A. 240

B. 1,600

C. 2,400

D. 24,000

14. **Writing in Math** A wind farm generates 330 kilowatts of electricity each day. About how many kilowatts does the wind farm produce in a week? Explain.

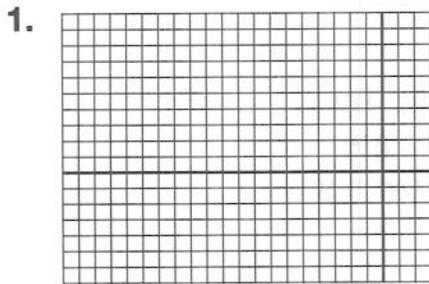
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# Using Arrays to Multiply

Use the grid to draw a rectangle. Then complete the calculation.



$$\begin{array}{r} 23 \\ \times 17 \\ \hline \square \square \\ \square \square \square \\ \square \square \\ \square \square \square \\ \hline \square \square \square \end{array}$$

2. 
$$\begin{array}{r} 31 \\ \times 19 \\ \hline \square \\ \square \square \square \\ \square \square \\ \square \square \square \\ \hline \square \square \square \end{array}$$

3. 
$$\begin{array}{r} 26 \\ \times 22 \\ \hline \square \square \\ \square \square \\ \square \square \square \\ \square \square \square \\ \hline \square \square \square \end{array}$$

4. 
$$\begin{array}{r} 33 \\ \times 14 \\ \hline \square \square \\ \square \square \square \\ \square \square \\ \square \square \square \\ \hline \square \square \square \end{array}$$

5.  $24 \times 57 =$  \_\_\_\_\_

6.  $44 \times 48 =$  \_\_\_\_\_

7. A red kangaroo can cover 40 ft in 1 jump. How many feet can the red kangaroo cover in 12 jumps? \_\_\_\_\_

## Test Prep

8. Barb exercises for 14 hr in 1 week. How many hours does she exercise in 32 weeks?

A. 496 hr

B. 448 hr

C. 420 hr

D. 324 hr

9. **Writing in Math** Explain how the product of  $16 \times 34$  is like the product of  $6 \times 34$  plus  $10 \times 34$ .

Name \_\_\_\_\_

**PROBLEM-SOLVING STRATEGY**

**P 6-4**

# Make an Organized List

Make an organized list to solve each problem. Write each answer in a complete sentence.

1. Tonya and Lauren are designing a soccer uniform. They want to use two colors on the shirt. Their choices are green, orange, yellow, purple, blue, and silver. How many ways can they choose two colors?

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2. Yancey collects plastic banks. He has three different banks: a pig, a cow, and a horse. How many ways can Yancey arrange his banks on a shelf?

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3. Kevin has a rabbit, a ferret, a gerbil, and a turtle. He feeds them in a different order each day. In how many different orders can Kevin feed his pets?

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**Multiplying Two-Digit Numbers**

1. 
$$\begin{array}{r} 54 \\ \times 17 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 36 \\ \times 20 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 53 \\ \times 12 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 48 \\ \times 46 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 37 \\ \times 83 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 62 \\ \times 17 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 91 \\ \times 49 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 28 \\ \times 56 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 70 \\ \times 39 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 58 \\ \times 90 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 97 \\ \times 42 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 64 \\ \times 88 \\ \hline \end{array}$$

13. A carton holds 24 bottles of juice. How many juice bottles are in 15 cartons?
- 
- \_\_\_\_\_

14. How much do 21 bushels of sweet corn weigh?
- 
- \_\_\_\_\_

Vegetable	Weight of 1 Bushel
Asparagus	24 lb
Beets	52 lb
Carrots	50 lb
Sweet corn	35 lb

15. How much do 18 bushels of asparagus weigh?
- 
- \_\_\_\_\_

16. How much more do 13 bushels of beets weigh than 13 bushels of carrots?
- 
- \_\_\_\_\_

**Test Prep**

17. Which of the following is a reasonable answer for  $92 \times 98$ ?  
**A.** 1,800      **B.** 9,000      **C.** 10,000      **D.** 90,000
18. **Writing in Math** Garth is multiplying  $29 \times 16$ . He has 174 after multiplying the ones and 290 after multiplying the tens. Explain how Garth can find the final product.  
 \_\_\_\_\_

Name \_\_\_\_\_

# Multiplying Greater Numbers

P 6-6

1. 
$$\begin{array}{r} 242 \\ \times 30 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 194 \\ \times 19 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 306 \\ \times 22 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 420 \\ \times 82 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 324 \\ \times 38 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 832 \\ \times 69 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 493 \\ \times 75 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 968 \\ \times 27 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 828 \\ \times 34 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 335 \\ \times 45 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 616 \\ \times 37 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 494 \\ \times 65 \\ \hline \end{array}$$

13. **Number Sense** Is 44,722 a reasonable answer for  $59 \times 758$ ? Explain.

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14. How many pencils are in 27 boxes?

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Supplies	Per Box
Pencils	144
Pens	115

15. How many pens are in 42 boxes?

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## Test Prep

16. Hailey sold 122 bottles of water in 1 week. About how many bottles could she sell in 19 weeks?

A. 1,000      B. 1,800      C. 2,400      D. 3,000

17. **Writing in Math** How could you use the product  $10 \times 414 = 4,140$  to find the product of  $12 \times 414$ ?

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# Choose a Computation Method P 6-7

Multiply. Tell what method you used.

1. 
$$\begin{array}{r} 50 \\ \times 90 \\ \hline \end{array}$$
 \_\_\_\_\_  
 \_\_\_\_\_

2. 
$$\begin{array}{r} 324 \\ \times 42 \\ \hline \end{array}$$
 \_\_\_\_\_  
 \_\_\_\_\_

3. 
$$\begin{array}{r} 84 \\ \times 39 \\ \hline \end{array}$$
 \_\_\_\_\_  
 \_\_\_\_\_

4. 
$$\begin{array}{r} 600 \\ \times 40 \\ \hline \end{array}$$
 \_\_\_\_\_  
 \_\_\_\_\_

5. 
$$\begin{array}{r} 537 \\ \times 88 \\ \hline \end{array}$$
 \_\_\_\_\_  
 \_\_\_\_\_

6. 
$$\begin{array}{r} 224 \\ \times 21 \\ \hline \end{array}$$
 \_\_\_\_\_  
 \_\_\_\_\_

How many books would you expect

7. Store B to sell in 10 weeks?

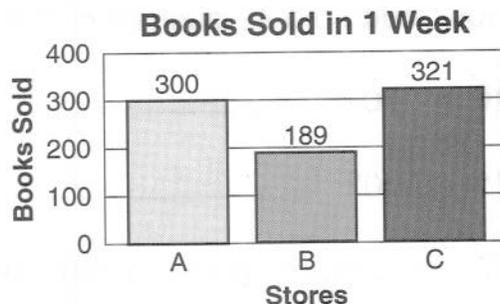
\_\_\_\_\_

8. Store A to sell in 20 weeks?

\_\_\_\_\_

9. How many more books would you expect to be sold in 6 weeks in Store C than in Store A?

\_\_\_\_\_



## Test Prep

10. Nathan has 20 friends coming to his party. If each friend brings 20 snacks, how many snacks are there?

- A. 400                      B. 800                      C. 1,000                      D. 2,000

11. **Writing in Math** Explain when you would choose a calculator to multiply.

\_\_\_\_\_  
 \_\_\_\_\_

Name \_\_\_\_\_

# Multiplying Money

P 6-8

1.  $\begin{array}{r} \$1.26 \\ \times 40 \\ \hline \end{array}$

2.  $\begin{array}{r} \$2.30 \\ \times 14 \\ \hline \end{array}$

3.  $\begin{array}{r} \$3.96 \\ \times 18 \\ \hline \end{array}$

4.  $\begin{array}{r} \$4.21 \\ \times 33 \\ \hline \end{array}$

5.  $\begin{array}{r} \$5.54 \\ \times 26 \\ \hline \end{array}$

6.  $\begin{array}{r} \$2.28 \\ \times 67 \\ \hline \end{array}$

7.  $\begin{array}{r} \$3.37 \\ \times 34 \\ \hline \end{array}$

8.  $\begin{array}{r} \$4.82 \\ \times 42 \\ \hline \end{array}$

9. **Number Sense** Margo bought 36 shirts that cost \$6.86 each. Which of the following is most likely to be the product, \$24.69, \$246.96, or \$2,469.60? Explain.

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How much did 42 bushels of corn cost in

10. 1970? \_\_\_\_\_

11. 2000? \_\_\_\_\_

12. How much more did 19 bushels of corn cost in 1980 than in 1990?

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**Price of Corn**

Year	Per Bushel
1970	\$1.33
1980	\$3.11
1990	\$2.28
2000	\$1.85

## Test Prep

13. The fourth-grade class rented 24 pairs of skates at the ice rink. Each pair cost \$2.45. How much did it cost to rent the skates?

A. \$5.88      B. \$49.00      C. \$58.80      D. \$62.48

14. **Writing in Math** Craig multiplied  $43 \times \$5.46$  and got an answer of \$234.78. Do you agree? Explain.

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**PROBLEM-SOLVING SKILL**

# Writing to Explain

Write to explain.

- Bonnie completed a tennis tournament. She received 5 points for each set she won. Complete the table and use the pattern to find the number of points she earned on the 4th and 5th days. Explain how the number of points earned increases as the number of sets won increases.

Day	1	2	3	4	5
Sets Won	2	3	4	5	6
Points	10	15	20		

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- Use the pictograph to find the difference between the number of Jazz and Country CDs sold in January. Show your computation neatly. Explain how you found your answer.

January CD Sales

Jazz	○○○○○○○○
Classical	○○○○○
Country	○○○

Each ○ = 50 CDs.

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- Copy the table and use the pattern to complete it. Explain how the number of students changes as the number of classrooms changes.

Classrooms	2	4	6	8	10
Students	48	96	144		

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Name \_\_\_\_\_

**PROBLEM-SOLVING APPLICATIONS**

**P 6-10**

# The Magazine

A magazine has 11 editors who supervise the writing of different parts of the magazine. Each managing editor has 28 workers.

1. Estimate how many total workers there are. Explain your estimate.

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2. Find the number of workers there are for the 11 editors.

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The magazine company publishes 56 issues each year. How many issues will the company publish in

3. 8 years? \_\_\_\_\_

4. 15 years? \_\_\_\_\_

5. 27 years? \_\_\_\_\_

Each magazine costs \$4.59 per issue. How much would it cost for

6. 6 issues? \_\_\_\_\_

7. 11 issues? \_\_\_\_\_

8. 23 issues? \_\_\_\_\_

A subscriber receives the magazine each week at home in the mail. Subscribers pay \$2.04 per issue. How much does the magazine cost for subscribers to get

9. 24 issues? \_\_\_\_\_

10. 52 issues? \_\_\_\_\_

11. A newsstand sells 716 issues of the magazine per week. How many issues does the newsstand sell in 1 year?

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