

# Multiplying Decimals by 10, 100, or 1,000

You can use patterns to multiply decimals mentally by 10, 100, and 1,000.

Andrew starts selling his baseball cards for \$0.10 each. After selling 10 cards, he has made \$1.00. After selling 100 cards, he has made \$10.00.



\$0.10



$\$0.10 \times 10 = \$1.00$



$\$0.10 \times 100 = \$10.00$

When you multiply by

10 ( $10^1$ )

Move decimal point by 1 place to the right

100 ( $10^2$ )

Move decimal point by 2 places to the right

1,000 ( $10^3$ )

Move decimal point by 3 places to the right

If Andrew sold 1,000 cards, how much money would he make? \_\_\_\_\_

**Mental Math** For questions 1 through 4, find the product using mental math.

1.  $6.1 \times 10$  \_\_\_\_\_

2.  $100 \times 37.98$  \_\_\_\_\_

3.  $92.3 \times 1,000$  \_\_\_\_\_

4.  $0.418 \times 100$  \_\_\_\_\_

5. Myla has an antique flower vase that she bought for \$15.75 many years ago. The vase's value is now 1,000 times as great. What is the value of the vase? \_\_\_\_\_

6. Raul can hit a golf ball 26.4 yards. A.J. can hit a golf ball 10 times as far. How far can A.J. hit the ball? \_\_\_\_\_

7. Is 0.018 a reasonable answer for  $1.8 \times 100$ ?

\_\_\_\_\_

\_\_\_\_\_

Name \_\_\_\_\_

# Multiplying Decimals by 10, 100, or 1,000

Use mental math to find each product.

1.  $53.7 \times 10$  \_\_\_\_\_
2.  $74.3 \times 100$  \_\_\_\_\_
3.  $66.37 \times 1,000$  \_\_\_\_\_
4.  $1.03 \times 10$  \_\_\_\_\_
5.  $92.5 \times 10$  \_\_\_\_\_
6.  $0.8352 \times 100$  \_\_\_\_\_
7.  $0.567 \times 100$  \_\_\_\_\_
8.  $572.6 \times 1,000$  \_\_\_\_\_
9.  $5.8 \times 100$  \_\_\_\_\_
10.  $0.21 \times 1,000$  \_\_\_\_\_
11.  $6.2 \times 1,000$  \_\_\_\_\_
12.  $1.02 \times 10$  \_\_\_\_\_
13.  $0.003 \times 1,000$  \_\_\_\_\_
14.  $0.002 \times 10$  \_\_\_\_\_
15.  $7.03 \times 10$  \_\_\_\_\_
16.  $4.06 \times 100$  \_\_\_\_\_

17. Kendra bought 10 gallons of gasoline at \$3.26 per gallon. How much did she pay for the gasoline?

- A** \$326.00    **B** \$32.60    **C** \$1.26    **D** \$0.26

18. Freddy is helping buy ingredients for salads for the school spaghetti dinner. He bought 10 pounds of onions at \$0.69 per pound, 100 pounds of tomatoes at \$0.99 per pound, 1,000 pounds of bread crumbs at \$0.09 per pound, and 100 pounds of lettuce at \$0.69 per pound. Which of the items he bought cost the most?

- A** tomatoes    **B** lettuce    **C** bread crumbs    **D** onions

19. Marco and Suzi each multiplied  $0.721 \times 100$ . Marco got 7.21 for his product. Suzi got 72.1 for her product. Which student multiplied correctly? How do you know?

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