



SKILL 10: Multiplying a Decimal by 10, 100, or 1,000

Look for a pattern. Notice how the product increases and the decimal point moves when you multiply by 10, 100, or 1,000.

$10 \times 25 = 250$	$10 \times 2.5 = 25$	$10 \times 0.025 = 0.25$
$100 \times 25 = 2,500$	$100 \times 2.5 = 250$	$100 \times 0.025 = 2.5$
$1,000 \times 25 = 25,000$	$1,000 \times 2.5 = 2,500$	$1,000 \times 0.025 = 25$

To multiply by 10, 100, or 1,000, move the decimal point one place to the right for each zero in 10, 100, or 1,000. Sometimes you will need to annex zeros to show the product.

Example

Multiply 5.38 by 10, 100, and 1,000.

$$5.38 \times 10 = 53.8$$

10 has one zero.
Move the decimal point one place to the right.

$$5.38 \times 10 = 53.8$$

$$5.38 \times 100 = 538.$$

100 has two zeros.
Move the decimal point two places to the right.

$$5.38 \times 100 = 538$$

$$5.38 \times 1,000 = 5,380.$$

1,000 has three zeros.
Move the decimal point three places to the right.
Annex a zero.

$$5.38 \times 1,000 = 5,380$$

Note: When the product is a whole number, no decimal point is needed.

Guided Practice

Place the decimal point in the product. Annex zeros if necessary.

1. $3.185 \times 10 = 3185$ 2. $3.185 \times 100 = 3185$ 3. $3.185 \times 1,000 = 3185$

4. $7.84 \times 10 = 784$ 5. $7.8 \times 100 = 78$ 6. $7.8 \times 1,000 = 78$

7. $0.3 \times 10 = 03$ 8. $0.03 \times 100 = 003$ 9. $0.03 \times 1,000 = 003$

Multiply.

10. $10 \times 0.6 =$ _____

11. $100 \times 0.043 =$ _____

12. $0.65 \times 1,000 =$ _____

13. $100 \times 0.007 =$ _____

14. $1.6537 \times 100 =$ _____

15. $0.0788 \times 1,000 =$ _____

SKILL 10: Practice

Multiply.

1. $10 \times 0.5 =$ _____
2. $100 \times 0.05 =$ _____
3. $1,000 \times 0.005 =$ _____
4. $10 \times 0.67 =$ _____
5. $100 \times 0.67 =$ _____
6. $0.67 \times 1,000 =$ _____
7. $1,000 \times 3.42 =$ _____
8. $100 \times 45.6 =$ _____
9. $3.65 \times 1,000 =$ _____
10. $0.5713 \times 100 =$ _____
11. $0.008 \times 10 =$ _____
12. $8.9 \times 10 =$ _____
13. $10 \times 3.657 =$ _____
14. $0.06 \times 1,000 =$ _____
15. $1.12 \times 10 =$ _____
16. $0.4671 \times 1,000 =$ _____
17. $1,000 \times 0.001 \times 0 =$ _____
18. $100 \times 0.01 \times 100 =$ _____
19. $3.261 \times 1,000 =$ _____
20. $10 \times 0.004 =$ _____
21. $58.02 \times 100 =$ _____
22. $1,000 \times 7.2 =$ _____
23. $10 \times 0.389 =$ _____
24. $65.2 \times 1,000 =$ _____

Solve.

25. A baseball must weigh between 5 ounces and 5.25 ounces. Ten baseballs would weigh between _____ ounces and _____ ounces.
26. A tennis ball must weigh between 2 ounces and 2.065 ounces. Ten tennis balls would weigh between _____ ounces and _____ ounces.
27. A football must be at least 10.875 inches long. What is the shortest total length of 100 of these footballs laid end to end? _____



28. Multiply: 26.7×100 .

A 2,670 C 26,700
B 0.267 D 267

Skill 10

29. Which number is less than 3.011?

F 3.111 H 3.001
G 3.1 J 3.101

Skill 3