Name _____ Date _____

Multiply Decimals by Positive Powers of 10

When you multiply a decimal by a positive power of 10, the decimal point moves to the right.

Example 1

$2.35 \cdot 10^2 = 2.3\ 5$

Multiplying by 10^2 is the same as multiplying by 100. There are 2 zeros in 100, so move the decimal point 2 places to the right.

$2.35 \cdot 10^2 = 235$

Example 2

$2.35 \cdot 10^3 = 2.3\ 5\ 0$

Multiplying by 10^3 is the same as multiplying by 1,000. There are 3 zeros in 1,000, so move the decimal point 3 places to the right. Write 0 as a placeholder.

$2.35 \cdot 10^3 = 2,350$

✔ Quick Check
Evaluate.

1 $8.29 \cdot 10$

2 $0.76 \cdot 10^2$

3 $1.52 \cdot 10^3$

_____   _____   _____

Practice on Your Own
Evaluate.

4 $12.8 \cdot 10$

5 $4.91 \cdot 10^2$

6 $0.154 \cdot 10^3$

_____   _____   _____

7 $5.6 \cdot 10^2$

8 $0.64 \cdot 10$

9 $37.9 \cdot 10^2$

_____   _____   _____

10 $0.86 \cdot 10$

11 $0.207 \cdot 10^2$

12 $9.5 \cdot 10^4$

_____   _____   _____

13 $5.1 \cdot 10^3$

14 $2.86 \cdot 10$

15 $0.108 \cdot 10^4$

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