

## Patterns in Multiplying by Powers of Ten, page 1 of 2

**1a** The post office sells one-cent stamps. Fill out the table below to show how much it would cost to buy different quantities of one-cent stamps.

Number of Stamps	Decimal Equation	Fraction Equation	Total Cost
1 stamp	$1 \times 0.01 = 0.01$	$1 \times \frac{1}{100} = \frac{1}{100}$	\$0.01
2 stamps	$2 \times 0.01 = 0.02$	$2 \times \frac{1}{100} = \frac{2}{100}$	\$0.02
10 stamps			
20 stamps			
45 stamps			
321 stamps			
404 stamps			

**b** What do you notice about multiplying by 0.01?

**2a** Amelia feeds her pet lizard crickets. The pet store sells crickets for ten cents each. Fill out the table below to show how much it would cost to buy different quantities of crickets.

Number of Crickets	Decimal Equation	Fraction Equation	Total Cost
1 cricket	$1 \times 0.10 = 0.10$	$1 \times \frac{1}{10} = \frac{1}{10}$	\$0.10
2 crickets	$2 \times 0.10 = 0.20$	$2 \times \frac{1}{10} = \frac{2}{10}$	\$0.20
10 crickets			
20 crickets			

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**2a** (cont.)

Number of Crickets	Decimal Equation	Fraction Equation	Total Cost
45 crickets			
321 crickets			
404 crickets			

**b** What do you notice about multiplying by 0.10?

**3a** Alfonso's company sells T-shirts to soccer teams. Each T-shirt costs ten dollars. Fill out the table below to show how much it would cost to buy different quantities of T-shirts.

Number of Shirts	Equation	Total Cost
1 shirt	$1 \times 10 = 10$	\$10
2 shirts	$2 \times 10 = 20$	\$20
10 shirts		
20 shirts		
45 shirts		
321 shirts		
404 shirts		

**b** What do you notice about multiplying by 10?

NAME \_\_\_\_\_



## Multiplying by Powers of Ten Practice

Complete the following equations.

$106 \times 0.01 = \underline{\hspace{2cm}}$

$47 \times 0.01 = \underline{\hspace{2cm}}$

$3 \times 0.01 = \underline{\hspace{2cm}}$

$0.6 \times 0.01 = \underline{\hspace{2cm}}$

$0.32 \times 0.01 = \underline{\hspace{2cm}}$

$0.1 \times 0.01 = \underline{\hspace{2cm}}$

$10 \times 0.01 = \underline{\hspace{2cm}}$

$452 \times 0.1 = \underline{\hspace{2cm}}$

$302 \times 0.1 = \underline{\hspace{2cm}}$

$64 \times 0.1 = \underline{\hspace{2cm}}$

$0.9 \times 0.1 = \underline{\hspace{2cm}}$

$0.57 \times 0.1 = \underline{\hspace{2cm}}$

$0.04 \times 0.1 = \underline{\hspace{2cm}}$

$0.1 \times 0.1 = \underline{\hspace{2cm}}$

$360 \times 10 = \underline{\hspace{2cm}}$

$23 \times 10 = \underline{\hspace{2cm}}$

$4 \times 10 = \underline{\hspace{2cm}}$

$0.7 \times 10 = \underline{\hspace{2cm}}$

$0.54 \times 10 = \underline{\hspace{2cm}}$

$0.01 \times 10 = \underline{\hspace{2cm}}$

$0.32 \times 100 = \underline{\hspace{2cm}}$

$4.3 \times 100 = \underline{\hspace{2cm}}$

$4 \times 100 = \underline{\hspace{2cm}}$

$45 \times 100 = \underline{\hspace{2cm}}$

$309 \times 100 = \underline{\hspace{2cm}}$

$0.1 \times 100 = \underline{\hspace{2cm}}$

$0.17 \times 1,000 = \underline{\hspace{2cm}}$

$0.34 \times 1,000 = \underline{\hspace{2cm}}$

$9.6 \times 1,000 = \underline{\hspace{2cm}}$

$603 \times 1,000 = \underline{\hspace{2cm}}$

$0.01 \times 1,000 = \underline{\hspace{2cm}}$