

## Patterns in Dividing by Powers of Ten, page 1 of 3

**1** Alfonso's company sells T-shirts to soccer teams. Each T-shirt costs ten dollars.

**a** If you spent \$1030, how many shirts could you buy?

**b** Fill out the table below to show how many T-shirts you could buy with different amounts of money.

Total Cost	Equation	Number of Shirts
\$10	$10 \div 10 = 1$	1
\$20	$20 \div 10 = 2$	2
\$100		
\$200		
\$450		
\$3210		
\$1020		

**c** What do you notice about dividing by 10?

**2** Amelia feeds her pet lizard crickets. The pet store sells crickets for ten cents each.

**a** If Amelia spent \$1.30 on crickets last week, how many crickets did she buy?

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**b** Fill out the table below to show how much it would cost to buy different quantities of crickets.

Total Cost	Decimal Equation	Fraction Equation	Number of Crickets
\$0.10	$0.10 \div 0.10 = 1$	$\frac{1}{10} \div \frac{1}{10} = 1$	1 cricket
\$0.20	$0.20 \div 0.10 = 2$	$\frac{2}{10} \div \frac{1}{10} = 2$	2 crickets
\$1.00			
\$2.00			
\$3.30			
\$5.20			

**c** What do you notice about dividing by 0.10?

**3** The post office sells one-cent stamps.

**a** If you spent \$2.08, how many one-cent stamps could you buy?

**b** Fill out the table below to show how many stamps you could buy with different amounts of money.

Total Cost	Decimal Equation	Fraction Equation	Number of Stamps
\$0.01	$0.01 \div 0.01 = 1$	$\frac{1}{100} \div \frac{1}{100} = 1$	1 stamp
\$0.02	$0.02 \div 0.01 = 2$	$\frac{2}{100} \div \frac{1}{100} = 2$	2 stamps
\$0.10			
\$0.40			

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**3b** Cont.

Total Cost	Decimal Equation	Fraction Equation	Number of Stamps
\$0.86			
\$2.47			
\$3.05			

**C** What do you notice about dividing by 0.01?

NAME \_\_\_\_\_



## Dividing by Powers of Ten Practice

Complete the following equations.

$3000 \div 1000 = \underline{\quad}$

$2504 \div 1000 = \underline{\quad}$

$372 \div 1000 = \underline{\quad}$

$0.6 \div 1000 = \underline{\quad}$

$0.03 \div 1000 = \underline{\quad}$

$900 \div 100 = \underline{\quad}$

$406 \div 100 = \underline{\quad}$

$7 \div 100 = \underline{\quad}$

$3.2 \div 100 = \underline{\quad}$

$0.08 \div 100 = \underline{\quad}$

$405 \div 10 = \underline{\quad}$

$0.63 \div 10 = \underline{\quad}$

$87 \div 0.1 = \underline{\quad}$

$6 \div 0.1 = \underline{\quad}$

$0.5 \div 0.1 = \underline{\quad}$

$0.48 \div 0.1 = \underline{\quad}$

$3 \div 0.01 = \underline{\quad}$

$6.9 \div 0.01 = \underline{\quad}$

$0.8 \div 0.01 = \underline{\quad}$

$409 \div 0.01 = \underline{\quad}$