

# Multiply by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth
			● ●	● ● ● ●	

a)  $2.3 \times 10 =$

When the number is multiplied by 10 the counters move  place to the left.

b)  $2.3 \times 100 =$

When the number is multiplied by 100 the counters move  places to the left.

c)  $2.3 \times 1,000 =$

When the number is multiplied by 1,000 the counters move  places to the left.

2 Complete the diagram.



3 a) Draw counters on the place value charts to represent each calculation.

$4.4 \times 1$

Th	H	T	O	Tth	Hth

$4.4 \times 10$

Th	H	T	O	Tth	Hth

$4.4 \times 100$

Th	H	T	O	Tth	Hth

$4.4 \times 1,000$

Th	H	T	O	Tth	Hth

b) Complete the calculations.

$4.4 \times 1 =$

$4.4 \times 10 =$

$4.4 \times 100 =$

$4.4 \times 1,000 =$

What do you notice?



4 Complete the calculations.

a)  $13.44 \times 10 =$

d)  $4.4 \times$    $= 4,400$

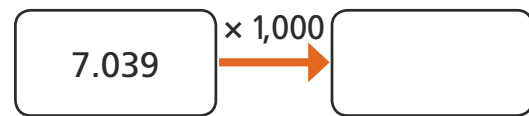
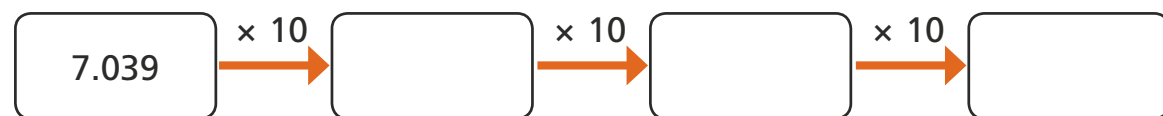
b)  $41.4 \times 100 =$

e)   $= 1.03 \times 100$

c)  $0.415 \times 1,000 =$

f)  $30.44 =$    $\times 10$

5 Complete the diagrams.



What do you notice? Why does this happen?

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6 Write  $>$ ,  $<$  or  $=$  to compare the number sentences.

$1.4 \times 10 \times 10 \times 10$    $1.4 \times 1,000$

$1.4 \times 10 \times 100$    $1.4 \times 1,000$

$1.4 \times 10 \times 10$    $1.4 \times 1,000$

$1.4 \times 10 \times 2$    $1.4 \times 100$

7 Kim is calculating  $14.3 \times 200$   
She writes this as her answer.

$$14.3 \times 200 = 28.600$$

Explain Kim's mistake.

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8 Use the cards to complete the calculation.  
You can use each card more than once.



$0.002$      $= 2,000$

How many ways is it possible to complete this calculation?

Talk about it with a partner.



# Divide by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth
	●	●● ●●			

a)  $140 \div 10 =$

When the number is divided by 10 the counters move  place to the right.

b)  $140 \div 100 =$

When the number is divided by 100 the counters move  places to the right.

c)  $140 \div 1,000 =$

When the number is divided by 1,000 the counters move  places to the right.

2 Complete the diagram.



3 a) Draw counters to represent the calculations.

$123 \div 1$

H	T	O	Tth	Hth	Thth

$123 \div 10$

H	T	O	Tth	Hth	Thth

$123 \div 100$

H	T	O	Tth	Hth	Thth

$123 \div 1,000$

H	T	O	Tth	Hth	Thth

b) Complete the calculations.

$123 \div 1 =$

$123 \div 10 =$

$123 \div 100 =$

$123 \div 1,000 =$

What do you notice?



4 Complete the calculations.

a)  $16 \div 10 =$

d)  $332 \div$    $= 0.332$

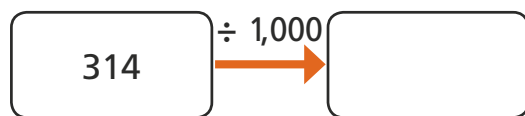
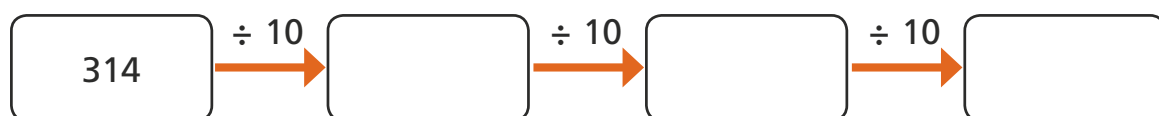
b)  $43.4 \div 100 =$

e)  $2.4 \div 200 =$

c)  $614 \div 1,000 =$

f)  $5.09 =$    $\div 20$

5 Complete the diagrams.



What do you notice? Why does this happen?

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6 Write  $>$ ,  $<$  or  $=$  to compare the number sentences.

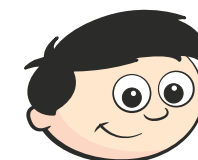
$5,400 \div 10 \div 10 \div 10$    $5,400 \div 1,000$

$60 \div 100 \div 10$    $600 \div 100$

$5.7 \div 10$    $57 \div 100$

$5,601 \div 1,000$    $5.601 \div 10$

7 Dexter is solving the calculation  $5,400 \div 100$



I think the answer is 54.00

Is Dexter correct? \_\_\_\_\_

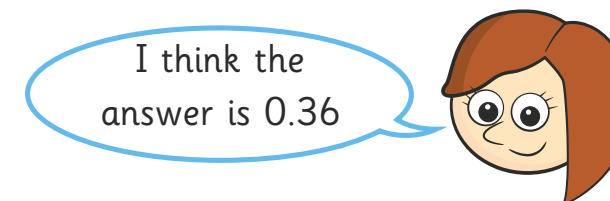
Explain your reasoning.

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8 Rosie is solving the calculation  $3,600 \div 200$



Is Rosie correct? \_\_\_\_\_

Explain your reasoning.

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