

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.

4.4×1

Th	H	T	O	Tth	Hth
				●	

4.4×10

Th	H	T	O	Tth	Hth
				●	

4.4×100

Th	H	T	O	Tth	Hth
				●	

$4.4 \times 1,000$

Th	H	T	O	Tth	Hth
				●	

b) Complete the calculations.

$4.4 \times 1 =$

$4.4 \times 10 =$

$4.4 \times 100 =$

$4.4 \times 1,000 =$

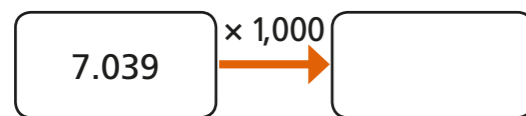
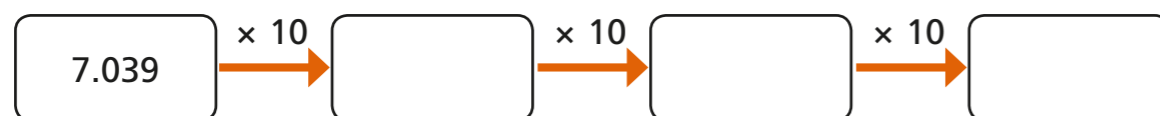
What do you notice?



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?

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

- $1.4 \times 10 \times 10 \times 10$ $1.4 \times 1,000$
- $1.4 \times 10 \times 100$ $1.4 \times 1,000$
- $1.4 \times 10 \times 10$ $1.4 \times 1,000$
- $1.4 \times 10 \times 2$ 1.4×100

7 Kim is calculating 14.3×200
She writes this as her answer.

$$14.3 \times 200 = 28.600$$

Explain Kim's mistake.

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) $332 \div$ $= 0.332$

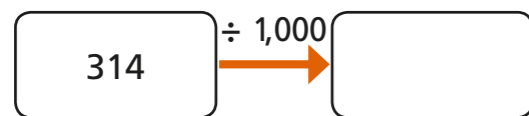
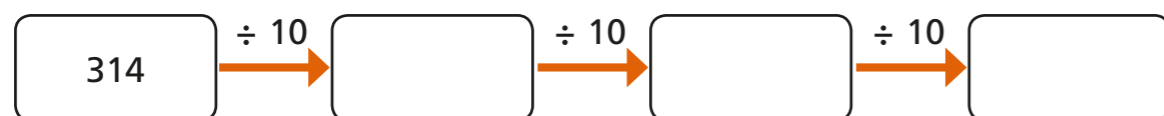
b) $43.4 \div 100 =$

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?

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

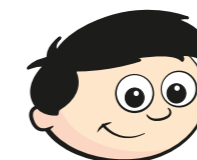
$5,400 \div 10 \div 10 \div 10$ $5,400 \div 1,000$

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

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

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

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

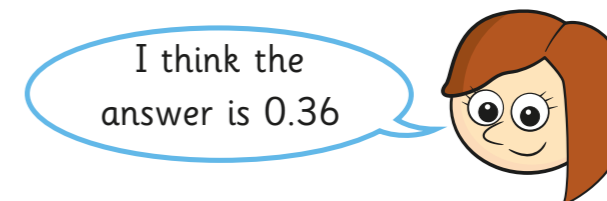


I think the answer is 54.00

Is Dexter correct? _____

Explain your reasoning.

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



Is Rosie correct? _____

Explain your reasoning.

