

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) $4.4 \times \boxed{} = 4,400$

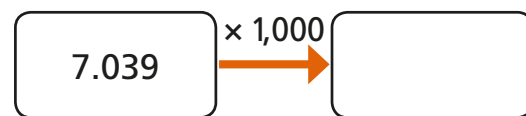
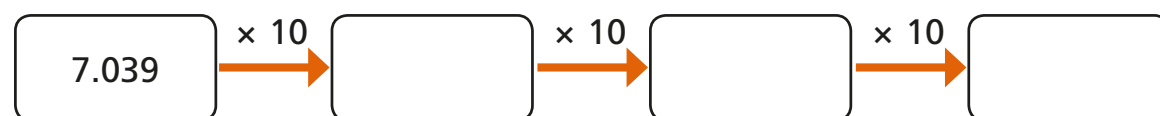
b) $41.4 \times 100 =$

e) = 1.03×100

c) $0.415 \times 1,000 =$

f) $30.44 = \boxed{} \times 10$

5 Complete the diagrams.



What do you notice? Why does this happen?



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

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

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

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

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

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.

Diagram illustrating the multiplication of 0.002 by powers of 10:

$\times 1$	$\times 10$	$\times 100$	$\times 1,000$
0.002			

$= 2,000$

How many ways is it possible to complete this calculation?

Talk about it with a partner.

