White Rose MATHS

1 Complete the calculations and sentences.

Use counters to help you.

Th	H	T	O	Tth	Hth
			●●	●●	
				●	

a) 2.3 × 10 = ⬚

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

b) 2.3 × 100 = ⬚

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

c) 2.3 × 1,000 = ⬚

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

2 Complete the diagram.

3.06 → × 10 → ⬚ → × 10 → ⬚

3 **a)** Draw counters on the place value charts to represent the answer to 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 × 1,000

Th	H	T	O	Tth	Hth

b) Complete the calculations.

4.4 × 1 = ⬚

4.4 × 10 = ⬚

4.4 × 100 = ⬚

4.4 × 1,000 = ⬚

What do you notice?

4 Complete the calculations.

a) $13.44 \times 10 = $ ___

e) $5.5 \times$ ___ $= 5,500$

b) $41.4 \times 100 = $ ___

f) ___ $= 1.03 \times 100$

c) $0.415 \times 1,000 = $ ___

g) $30.44 = $ ___ $\times 10$

d) $3.06 \times 100 = $ ___

h) $504 = 100 \times$ ___

5 Complete the diagrams.

7.039 $\xrightarrow{\times 10}$ ___ $\xrightarrow{\times 10}$ ___ $\xrightarrow{\times 10}$ ___

7.039 $\xrightarrow{\times 100}$ ___ $\xrightarrow{\times 10}$ ___

7.039 $\xrightarrow{\times 1,000}$ ___
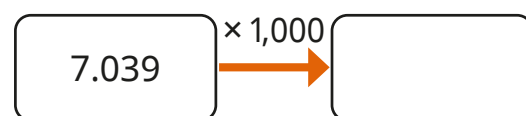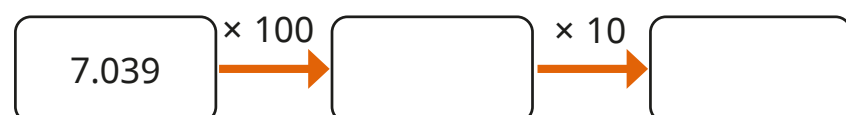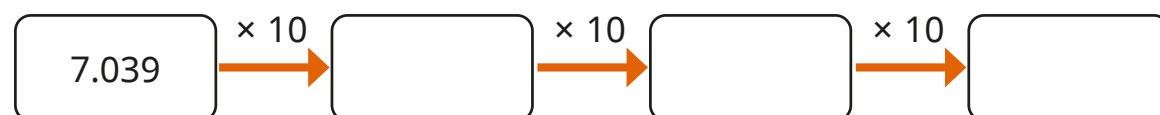
What do you notice? Why does this happen?

___

___

___

6 Write >, < or = to compare the multiplications.

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

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

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

$1.4 \times 10 \times 2$ ◯ 1.4×100

7 Kim is working out 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.

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

0.002 ___ ___ ___ $= 2,000$

How many different ways can this calculation be completed, using these cards?

Talk about it with a partner.