

# Thursday Snorkelling

## Divide by 10, 100 and 1,000

White  
Rose  
Maths

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth
	●	●●●●			

a)  $140 \div 10 = 14$

When the number is divided by 10 the counters move 1 place to the right.

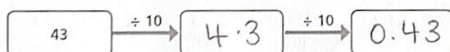
b)  $140 \div 100 = 1.4$

When the number is divided by 100 the counters move 2 places to the right.

c)  $140 \div 1,000 = 0.14$

When the number is divided by 1,000 the counters move 3 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.

$123 \div 1 = 123$

$123 \div 10 = 12.3$

$123 \div 100 = 1.23$

$123 \div 1,000 = 0.123$

What do you notice? *Various observations.*

4 Complete the calculations.

a)  $16 \div 10 = 1.6$

d)  $332 \div 1000 = 0.332$

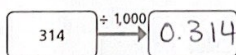
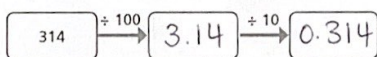
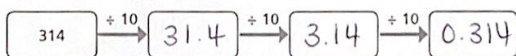
b)  $43.4 \div 100 = 0.434$

e)  $2.4 \div 200 = 0.012$

c)  $614 \div 1,000 = 0.614$

f)  $5.09 = 101.8 \div 20$

5 Complete the diagrams.



What do you notice? Why does this happen?

Various obs: number of zeros in total = number of columns jumped.

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? Yes

Explain your reasoning.

The numbers jump two columns: there are 2 zeros. He doesn't need the .00, though.

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

I think the answer is 0.36



Is Rosie correct? No

Explain your reasoning.

She's  $\div 10,000$ . The numbers should jump 2 columns, then halve, giving 18.