Thursday 18th June y6

Today we are going to continue lesson one part B: dividing decimals.

Think slider where it helps!

Go to white rose y6 summer week 5 lesson 1 to watch the video again (if you feel you need to) before completing the worksheet below:

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) $140 \div 10 = \boxed{}$

When the number is divided by 10 the counters move $\boxed{}$ place to the right.

b) $140 \div 100 = \boxed{}$

When the number is divided by 100 the counters move $\boxed{}$ places to the right.

c) $140 \div 1,000 = \boxed{}$

When the number is divided by 1,000 the counters move $\boxed{}$ places to the right.

2 Complete the diagram.

$\boxed{43} \xrightarrow{\div 10} \boxed{} \xrightarrow{\div 10} \boxed{}$
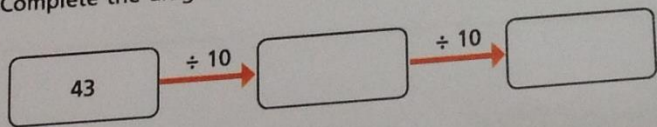
3 a) Draw counters to represent the calculations.

$123 \div 1$

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.

$123 \div 1 = \boxed{}$

$123 \div 10 = \boxed{}$

$123 \div 100 = \boxed{}$

$123 \div 1,000 = \boxed{}$

What do you notice?

4 Complete the calculations.

a) $16 \div 10 = $ [ ]

b) $43.4 \div 100 = $ [ ]

c) $614 \div 1,000 = $ [ ]

d) $332 \div $ [ ] $= 0.332$

e) $2.4 \div 200 = $ [ ]

f) $5.09 = $ [ ] $\div 20$

5 Complete the diagrams.

314 → $\div 10$ → [ ] → $\div 10$ → [ ] → $\div 10$ → [ ]

314 → $\div 100$ → [ ] → $\div 10$ → [ ]

314 → $\div 1,000$ → [ ]
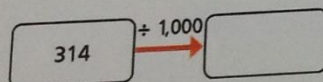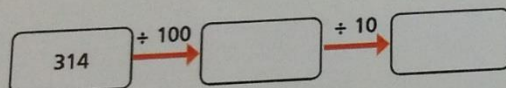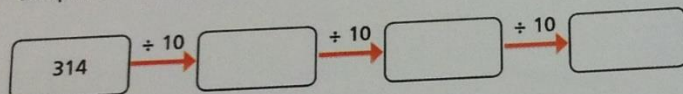
What do you notice? Why does this happen?

_____

_____

_____

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 $3,600 \div 200$

> I think the answer is 0.36

Is Rosie correct? _____

Explain your reasoning.

_____

_____

Divide by 10, 100 and 1,000

1 Complete the calculations and sentences.

Use place value counters to help you.

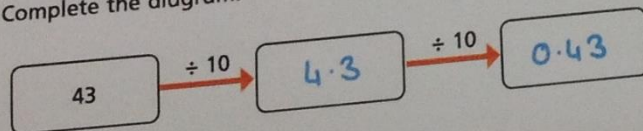| Th	H	T	O	Tth	Hth
	●	●●			
		●●			

a) $140 \div 10 =$ | 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.

| 43 | → ÷ 10 → | 4·3 | → ÷ 10 → | 0·43 |

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?

4 Complete the calculations.

a) $16 \div 10 = \boxed{1 \cdot 6}$

b) $43.4 \div 100 = \boxed{0 \cdot 434}$

c) $614 \div 1,000 = \boxed{0 \cdot 614}$

d) $332 \div \boxed{1,000} = 0.332$

e) $2.4 \div 200 = \boxed{0.012}$

f) $5.09 = \boxed{101.8} \div 20$

5 Complete the diagrams.

$314 \xrightarrow{\div 10} \boxed{31 \cdot 4} \xrightarrow{\div 10} \boxed{3 \cdot 14} \xrightarrow{\div 10} \boxed{0 \cdot 314}$

$314 \xrightarrow{\div 100} \boxed{3 \cdot 14} \xrightarrow{\div 10} \boxed{0 \cdot 314}$

$314 \xrightarrow{\div 1,000} \boxed{0 \cdot 314}$
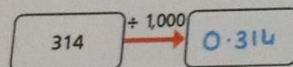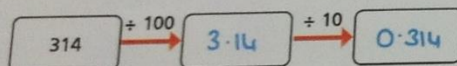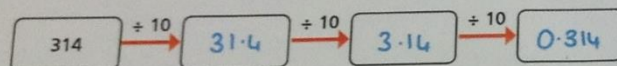
What do you notice? Why does this happen?

They all give the same final answer because
$10 \times 10 \times 10 = 100 \times 10 = 1,000$

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

$5,400 \div 10 \div 10 \div 10 \;\boxed{=}\; 5,400 \div 1,000$

$60 \div 100 \div 10 \;\boxed{<}\; 600 \div 100$

$5.7 \div 10 \;\boxed{=}\; 57 \div 100$

$5,601 \div 1,000 \;\boxed{>}\; 5.601 \div 10$

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

I think the answer is 54.00

Is Dexter correct? Yes

Explain your reasoning.

54.00 is the same as 54

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 has divide by 100 twice (10,000) she should
have divided by 100 then 2 to give an answer of 18