



Key Instant Recall Facts

Year 6 – Spring 1

I can convert between decimals, fractions and percentages.

$$\frac{1}{2} = 0.5$$

$$\frac{1}{4} = 0.25$$

$$\frac{3}{4} = 0.75$$

$$\frac{1}{10} = 0.1$$

$$\frac{1}{5} = 0.2$$

$$\frac{3}{5} = 0.6$$

$$\frac{9}{10} = 0.9$$

$$\frac{1}{100} = 0.01$$

$$\frac{7}{100} = 0.07$$

$$\frac{21}{100} = 0.21$$

$$\frac{75}{100} = 0.75$$

$$\frac{99}{100} = 0.99$$

Key Vocabulary

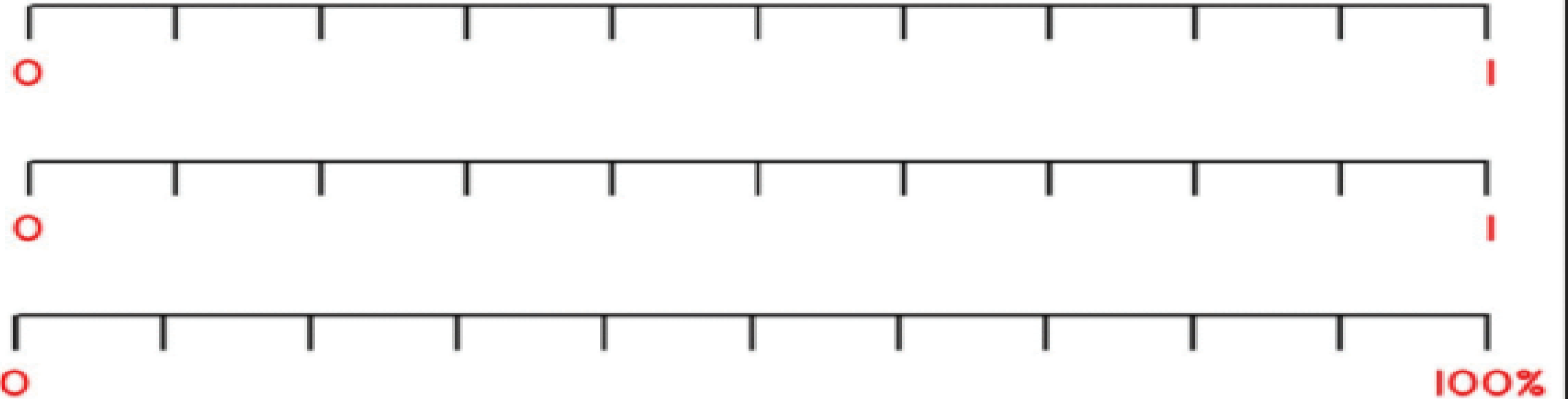
How many **tenths** is 0.8?

How many **hundredths** is 0.12?

Write 0.75 as a **fraction**?

Write $\frac{1}{4}$ as a **decimal**?

FRACTION DECIMAL PERCENT NUMBER LINES 0 TO 1



$\frac{1}{2}$

50%

0.25

75%

$\frac{1}{5}$

$\frac{1}{3}$

Talk with your partner:

Where would these fractions, decimals or percentages go and how do you know?

Fri

RECALL

Using a place value chart and counters can you show why $0.21 \times 10 = 2.1$?

○	Tth	Hth	Thth
	● ●	●	

L.O. -DIVIDE DECIMALS BY 10, 100 AND 1000

- **Some will even** be able think how dividing by 10, 100 and 1,000 links to multiples of 10 eg. $\div 20$, $\div 200$ or $\div 2,000$
- **Some will** be able explain how dividing by 10, 100 and 1,000 affects the number.
- **Most will** be able to explain a rule to help divide decimals by 10, 100 and 1000
- **All will** be able to use a place value chart to help divide decimals by 10, 100 and 1000

GUIDED PRACTICE – MY TURN



- 1) 10 children make 12m of paper chains. They make an equal length chain.

What length do they each make?

- 2) There are 20 children in the class altogether.

What length of paper chain would each child make if they each made an equal share of the 12 m?

help

Use a place value chart to help you.

GUIDED PRACTICE – OUR TURN



1) 10 children make 12m of paper chains. They make an equal length chain.

What length do they each make?

2) There are 20 children in the class altogether.

What length of paper chain would each child make if they each made an equal share of the 12 m?

help

Use a place value chart to help you.

GUIDED PRACTICE – YOUR TURN



1) 10 children make 14 m of paper chains. They make an equal length chain.

What length do they each make?

2) There are 20 children in the class altogether.

What length of paper chain would each child make if they each made an equal share of the 14 m?

help

Use a place value chart to help you.



What if 30 children were making the 14m paper chain? PROVE IT!

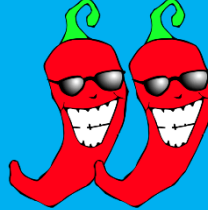


Complete these calculations

1) $350 \div 10 =$

2) $350 \div 100 =$

3) $350 \div 1000 =$

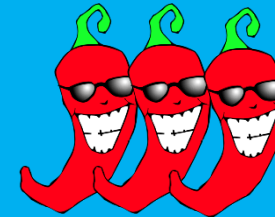


Complete these calculations

1) $52 \div 10 =$

2) $52 \div 100 =$

3) $52 \div 1000 =$



Complete these calculations

1) $6.7 \div 100 =$

2) $0.92 \div 10 =$

3) $10.02 \div 1000 =$



Complete these calculations

1) $240 \div 100 =$

2) $240 \div 200 =$

3) $240 \div 300 =$

4) $240 \div 400 =$

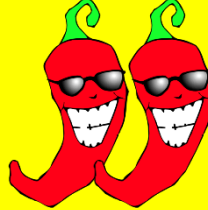


Complete these calculations

1) $350 \div 10 = 35$

2) $350 \div 100 = 3.5$

3) $350 \div 1000 = 0.35$

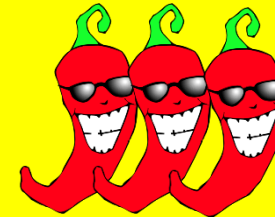


Complete these calculations

1) $52 \div 10 = 5.2$

2) $52 \div 100 = 0.52$

3) $52 \div 1000 = 0.052$



Complete these calculations

1) $6.7 \div 100 = 0.067$

2) $0.92 \div 10 = 0.092$

3) $10.02 \div 1000 = 0.01002$



Complete these calculations

1) $240 \div 100 = 2.4$

2) $240 \div 200 = 1.2$

3) $240 \div 300 = 0.8$

4) $240 \div 400 = 0.6$



DIVE DEEPER 1

1) Complete the calculations and sentences.

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) $140 \div 1000 =$

When the number is divided by 1000 the counters move __ places to the right.

3) Complete these calculations

$$123 \div 1 =$$

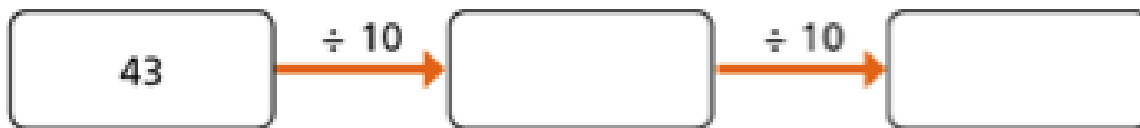
$$123 \div 10 =$$

$$123 \div 100 =$$

$$123 \div 1,000 =$$

What do you notice?

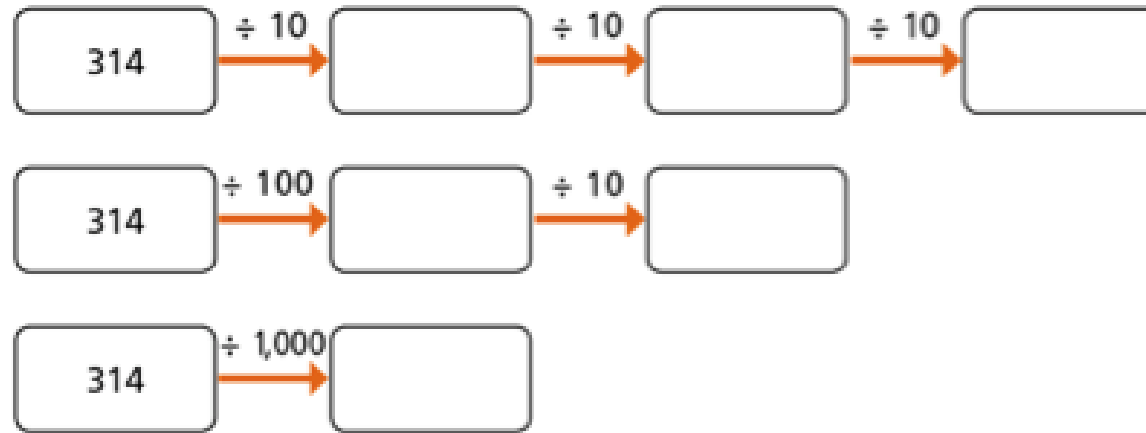
2) Complete the diagram



DIVE DEEPER 2



4) Complete these diagrams.



What do you notice? Why does this happen?

5) Write $<$ $>$ or $=$ to compare the number sentence.

$$5,400 \div 10 \div 10 \div 10 \text{ ____ } 5,400 \div 1,000$$

$$60 \div 100 \div 10 \text{ ____ } 600 \div 100$$

$$5.7 \div 10 \text{ ____ } 57 \div 1,000$$

$$5,601 \div 1000 \text{ ____ } 5.601 \div 10$$

Kim is calculating $5400 \div 100$

I think the answer is 54.00

Is Kim correct? Explain your reasoning.



APE



6) Complete these two divisions. Which method do you think is most efficient?

$$40 \div 50 =$$

$$600 \div 3,000 =$$

$$\text{a) } 40 \div 10 \div 5 =$$

$$\text{c) } 600 \div 3 \div 1,000 =$$

$$\text{b) } 40 \div 5 \div 10 =$$

$$\text{d) } 600 \div 1,000 \div 3 =$$

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

She says, 'I think the answer is 0.36.'

Is Rosie correct? Explain your reasoning

DIVE DEEPER 1 ANSWERS

1) Complete the calculations and sentences.

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) $140 \div 1000 = 0.14$

When the number is divided by 1000 the counters move **3** places to the right.

2) Complete the diagram



DIVE DEEPER 2 ANSWERS

3) Complete these calculations

$$123 \div 1 = 123$$

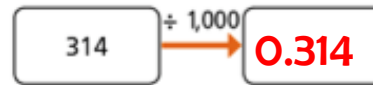
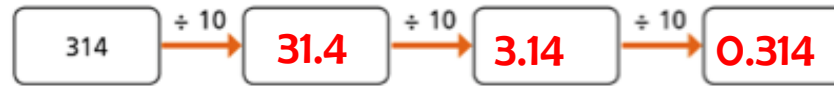
$$123 \div 10 = 12.3$$

$$123 \div 100 = 1.23$$

$$123 \div 1,000 = 0.123$$

What do you notice?

4) Complete these diagrams.



What do you notice? Why does this happen?

5) Write < > or = to compare the number sentence.

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

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

$$5.7 \div 10 > 57 \div 1,000$$

$$5,601 \div 1000 > 5.601 \div 10$$



9a. Flaky Corn ship 2,565,450kg of cornflakes to two warehouses every month.

John's warehouse packages it into 1,000 boxes, which he distributes to 100 shops.

Tracy's warehouse packages it into 100 boxes, which she distributes to 100 shops.

Whose warehouse distributes the most cornflakes per shop?

9b. Juicy Co. makes 1,678 litres of juice.

The Big Bottle company buy one 100th of the juice and package it into 100 bottles.

Drink 'n' Go buy one 10th of the juice and package it into 10 bottles.

Which company sells the biggest bottle of juice?

