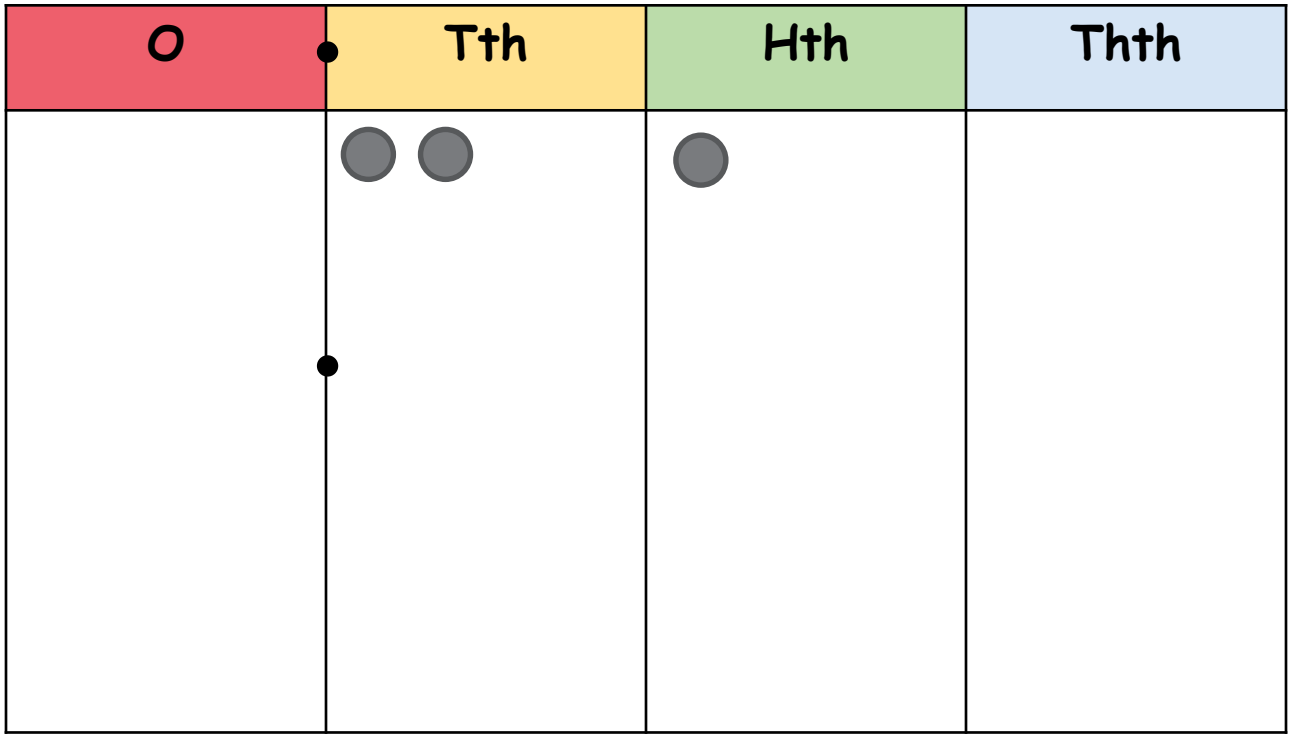
RECALL

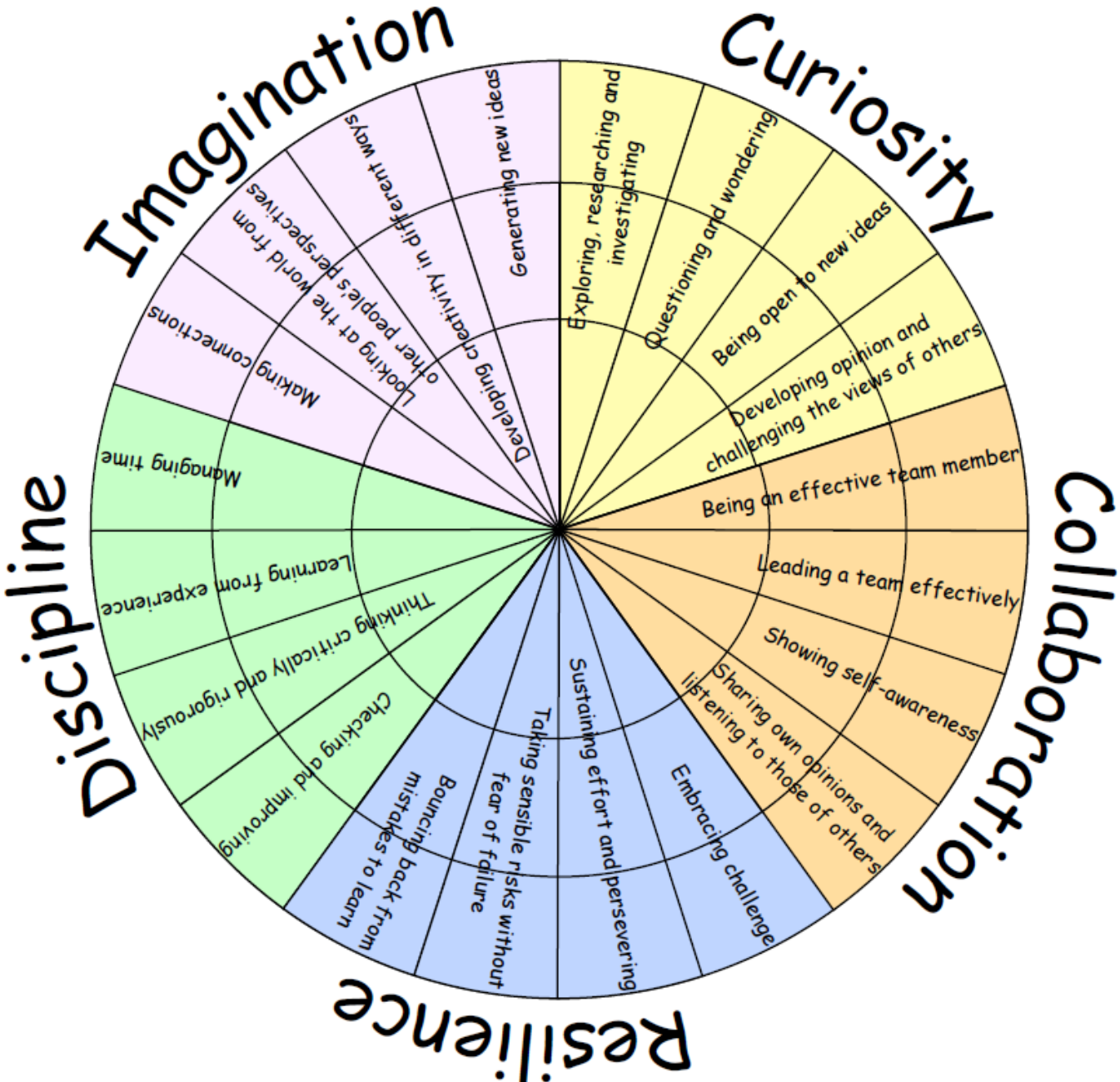
Using a place value chart and counters can you show why 0.21 x 10 = 2.1?



I CAN DIVIDE DECIMALS BY 10, 100 AND 1000

Decimals (14v)

LEARNING HABITS?



GUIDED PRACTICE

1) 10 children make 12 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 12 m?

How many different ways can you show these calculations?

INTELLIGENT PRACTICE

Complete these calculations

1) 350 ÷ 10 =

2) 350 ÷ 100 =

3) 350 ÷ 1000 =

Complete these calculations

1) 52 ÷ 10 =

2) 502 ÷ 100 =

3) 5002 ÷ 1000 =

Complete these calculations

1) 6.7 ÷ 100 =

2) 0.92 ÷ 10 =

3) 10.02 ÷ 1000 =

Complete these calculations

1) 240 ÷ 100 =

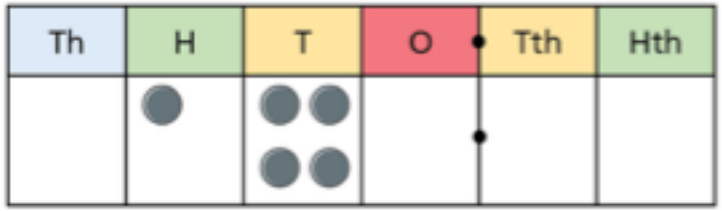
2) 240 ÷ 200 =

3) 240 ÷ 300 =

4) 240 ÷ 400 =

DIVE DEEPER 1

1) Complete the calculations and sentences.



a) 140 ÷ 10 =
When the number is divided by 10 the counters move __ place to the right.

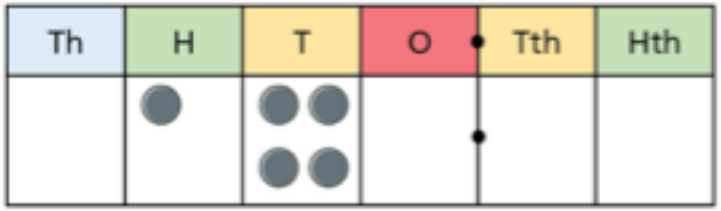
b) 140 ÷ 100 =
When the number is divided by 100 the counters move __ places to the right.

c) 140 ÷ 1000 =
When the number is divided by 1000 the counters move __ places to the right.

2) Complete the diagram

DIVE DEEPER 1 ANSWERS

1) Complete the calculations and sentences.



a) 140 ÷ 10 = 14
When the number is divided by 10 the counters move 1 place to the right.

b) 140 ÷ 100 = 1.4
When the number is divided by 100 the counters move 2 places to the right.

c) 140 ÷ 1000 = 0.14
When the number is divided by 1000 the counters move 3 places to the right.

2) Complete the diagram

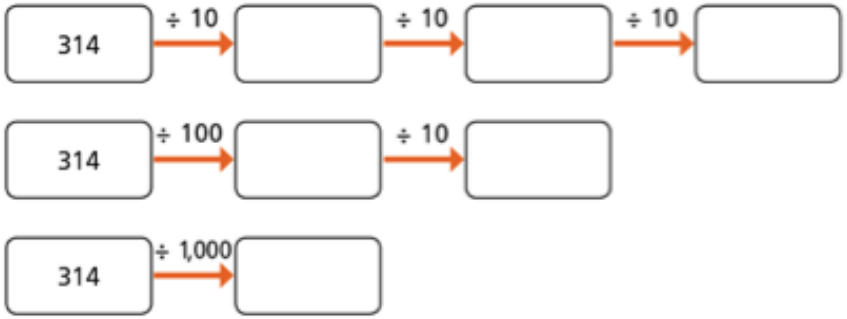
DIVE DEEPER 2

3) Complete these calculations

123 ÷ 1 =
123 ÷ 10 =
123 ÷ 100 =
123 ÷ 1,000=

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 ÷ 10 ÷ 10 ÷ 10 _____ 5,400 ÷ 1,000
60 ÷ 100 ÷ 10 _____ 600 ÷ 100
5.7 ÷ 10 _____ 57 ÷ 1,000
5,601 ÷ 1000 _____ 5.601 ÷ 10

6) Kim is calculating 5400 ÷ 100

I think the answer is 54.00

Is Kim correct?
Explain your reasoning.

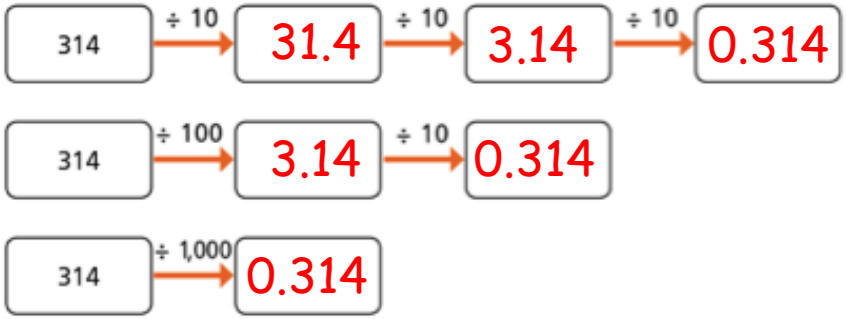
DIVE DEEPER 2 ANSWERS

3) Complete these calculations

123 ÷ 1 = 123
123 ÷ 10 = 12.3
123 ÷ 100 = 1.23
123 ÷ 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 ÷ 10 ÷ 10 ÷ 10 = 5,400 ÷ 1,000
60 ÷ 100 ÷ 10 < 600 ÷ 100
5.7 ÷ 10 > 57 ÷ 1,000
5,601 ÷ 1000 > 5.601 ÷ 10

6) Kim is calculating 5400 ÷ 100

I think the answer is 54.00
Is Kim correct?
Kim is correct because her number has moved two places in a place value chart to the right.

DIVE DEEPER 3

Rosie is solving the calculation 3,600 ÷ 200

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

Is Rosie correct?
Explain your reasoning

Complete these twos divisions. Which method do you think is most efficient?

40 ÷ 50 =

a) 40 ÷ 10 ÷ 5 =

b) 40 ÷ 5 ÷ 10 =

600 ÷ 3,000 =

c) 600 ÷ 3 ÷ 1,000 =

d) 600 ÷ 1,000 ÷ 3 =

Find pairs of calculations that have the same answer.

3.5 ÷ 10	70 ÷ 20	35 ÷ 1,000
70 ÷ 200	7 ÷ 200	350 ÷ 100

SELF-ASSESSMENT

- Some will even be able think how dividing by 10, 100 and 1,000 links to multiples of 10 eg. ÷ 20, ÷ 200 or ÷ 2,000
- Some will be able explain how dividing by 10, 100 and 1,000
- 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