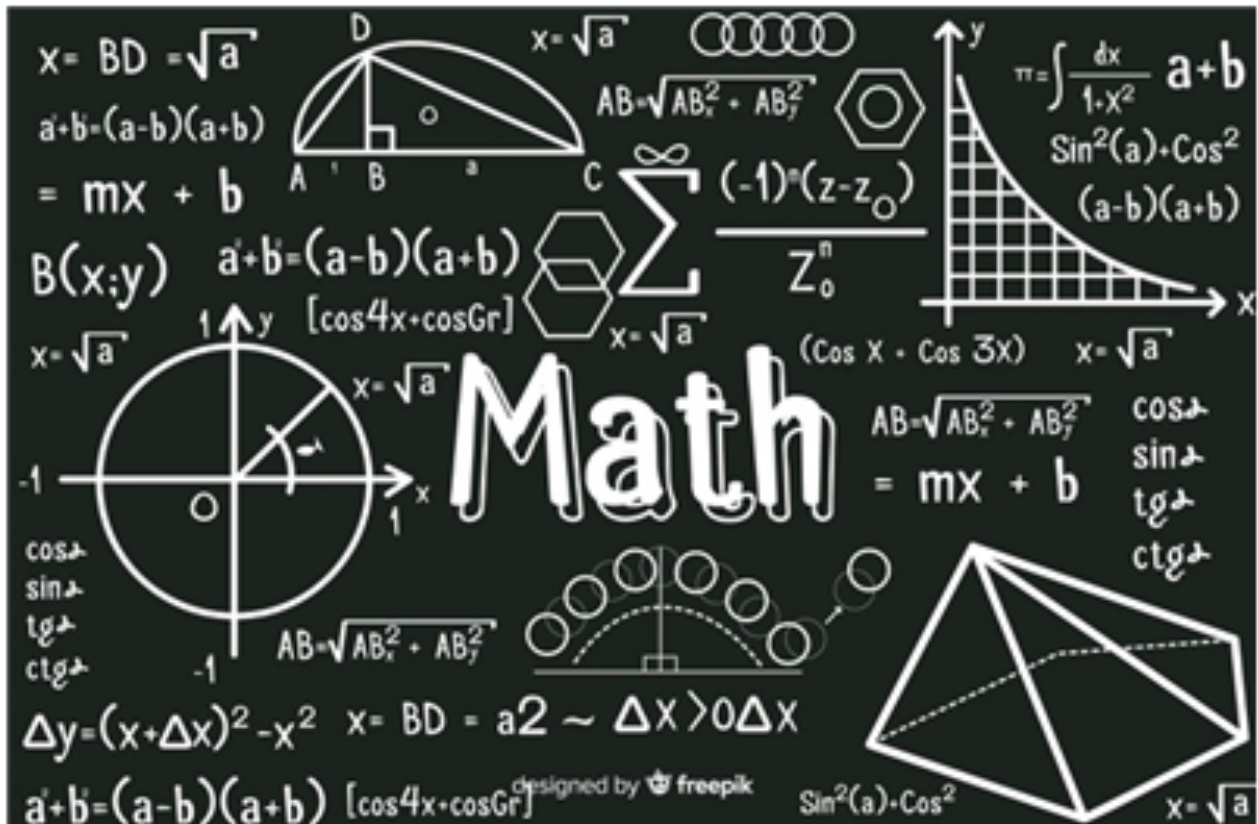


MATHS CHALLENGE



- Check out the daily Maths Sessions on White Rose Hub. Make sure you watch the videos first. I have been really impressed to see how well you have all been doing on these. Keep it up. Complete the Wednesday activity on Maths Shed
- Complete 'Daily 10'
- Have a go at 'Grand Prix Multiplication'. Private games will take place at 12.00 this week. Note the change of time! Feel free to join. The password will be 'y6'.

Multiply 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) $2.3 \times 10 =$

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

b) $2.3 \times 100 =$

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

c) $2.3 \times 1,000 =$

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

2 Complete the diagram.



3 a) Draw counters on the place value charts to represent 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

$4.4 \times 1,000$

Th	H	T	O	Tth	Hth

b) Complete the calculations.

$4.4 \times 1 =$

$4.4 \times 10 =$

$4.4 \times 100 =$

$4.4 \times 1,000 =$

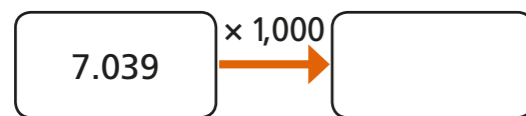
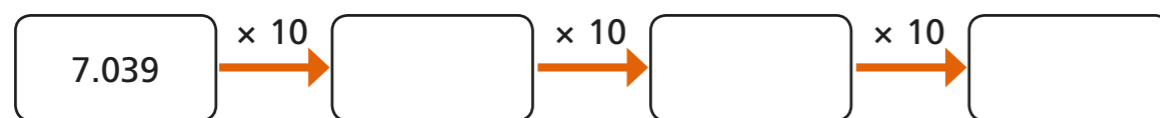
What do you notice?



4 Complete the calculations.

- a) $13.44 \times 10 =$ d) $4.4 \times$ $= 4,400$
- b) $41.4 \times 100 =$ e) $= 1.03 \times 100$
- c) $0.415 \times 1,000 =$ f) $30.44 =$ $\times 10$

5 Complete the diagrams.



What do you notice? Why does this happen?

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

- $1.4 \times 10 \times 10 \times 10$ $1.4 \times 1,000$
- $1.4 \times 10 \times 100$ $1.4 \times 1,000$
- $1.4 \times 10 \times 10$ $1.4 \times 1,000$
- $1.4 \times 10 \times 2$ 1.4×100

7 Kim is calculating 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.

0.002 $= 2,000$

How many ways is it possible to complete this calculation?

Talk about it with a partner.



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) $140 \div 10 =$

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) $140 \div 1,000 =$

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

$123 \div 1 =$

$123 \div 10 =$

$123 \div 100 =$

$123 \div 1,000 =$

What do you notice?





4 Complete the calculations.

a) $16 \div 10 = \square$

d) $332 \div \square = 0.332$

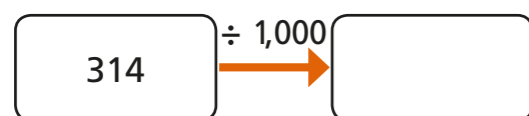
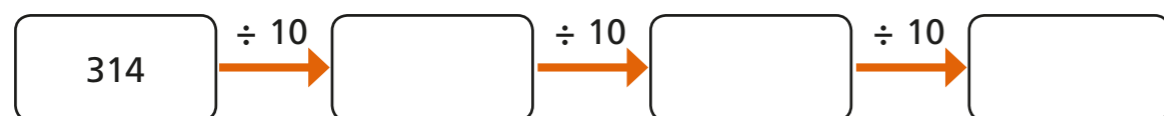
b) $43.4 \div 100 = \square$

e) $2.4 \div 200 = \square$

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

f) $5.09 = \square \div 20$

5 Complete the diagrams.



What do you notice? Why does this happen?

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

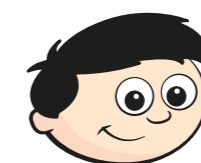
$5,400 \div 10 \div 10 \div 10 \bigcirc 5,400 \div 1,000$

$60 \div 100 \div 10 \bigcirc 600 \div 100$

$5.7 \div 10 \bigcirc 57 \div 100$

$5,601 \div 1,000 \bigcirc 5.601 \div 10$

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

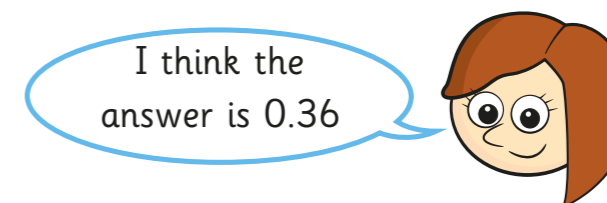


I think the answer is 54.00

Is Dexter correct? _____

Explain your reasoning.

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



Is Rosie correct? _____

Explain your reasoning.



Multiply decimals by integers



1 Use place value counters to solve the calculations.

a) $3.2 \times 3 =$

Ones	Tenths
1 1 1	0.1 0.1
1 1 1	0.1 0.1
1 1 1	0.1 0.1

b) $4.6 \times 2 =$

Ones	Tenths
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1

2 Solve the multiplication. Draw your answer.

$12.2 \times 3 =$

Tens	Ones	Tenths

3 Nijah uses long multiplication to solve 3.72×3

		3	·	7	2
	x				3
		0	·	0	6
		2	·	1	0
		9	·	0	0
	1	1	·	1	6

Use long multiplication to work out the calculations.

a)

		4	·	8	6
	x				4

b)

		2	·	0	9
	x				6

4 Work out the multiplications.

a) $5.2 \times 4 =$

d) $= 2.34 \times 3$

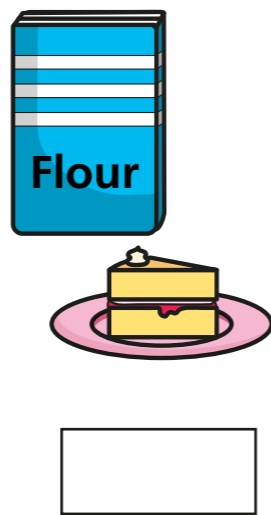
b) $14.3 \times 3 =$

e) $11.505 \times 4 =$

c) $6 \times 9.1 =$

f) $9.602 \times 6 =$

- 5 0.25 kg of flour is needed to make one cake.
How much flour is needed to make four cakes?



- 6 Work out the multiplications.

a) $7.2 \times 2 =$

$7.2 \times 4 =$

$14.4 \times 4 =$

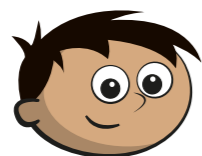
$7.2 \times 8 =$

b) $= 3.45 \times 3$

$= 34.5 \times 3$

$= 345 \times 3$

- 7 Amir is solving 3.4×4



To solve this, I did 34×4 , which was 136. Then I multiplied my answer by 10 to get an answer of 1,360.

Do you agree with Amir? _____

Explain why.

- 8 Use the digits 1, 2, 3 and 4 once each to create a calculation.

1	2	3	4
---	---	---	---

<input type="text"/>	\cdot	<input type="text"/>	\times	<input type="text"/>
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- a) How many different products can you make?

- b) What is the greatest possible product?

- c) What is the smallest possible product?

- d) What is the product closest to 12?

Compare answers with a partner.

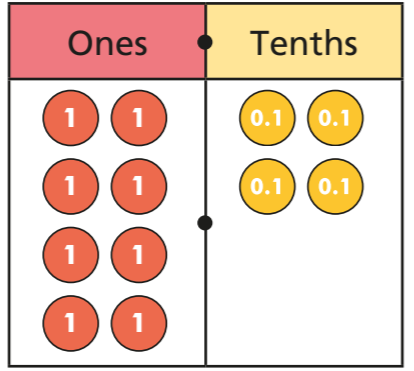


Divide decimals by integers

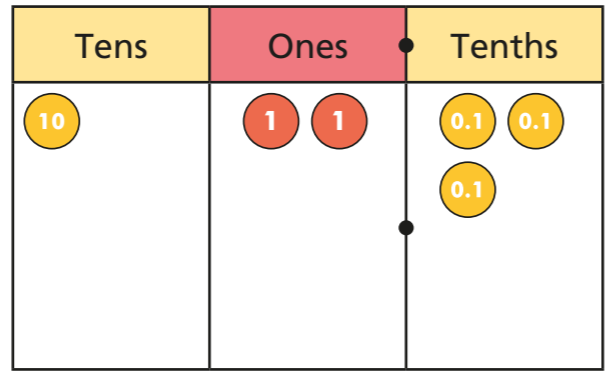


1 Use place value counters to work out the divisions.

a) $8.4 \div 4 =$

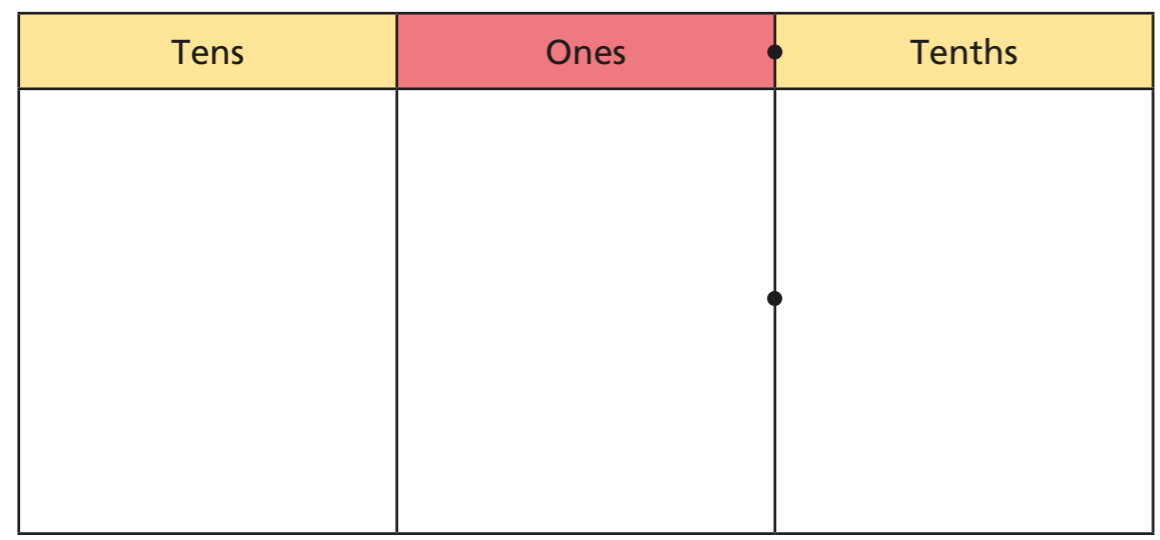


b) $12.3 \div 3 =$

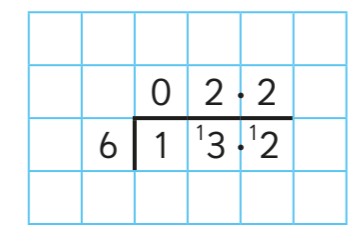


2 Work out the division. Draw your answer.

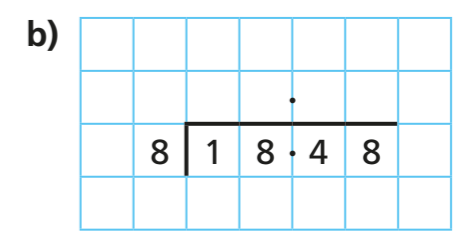
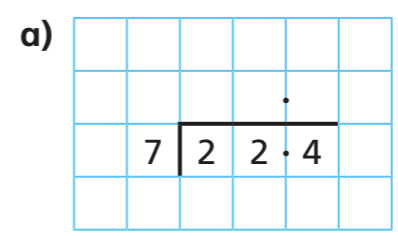
$16.4 \div 4 =$



3 Brett uses short division to work out $13.2 \div 6$



Use short division to work out the calculations.



4 Work out the divisions.

a) $25.6 \div 8 =$

d) = $19.45 \div 5$

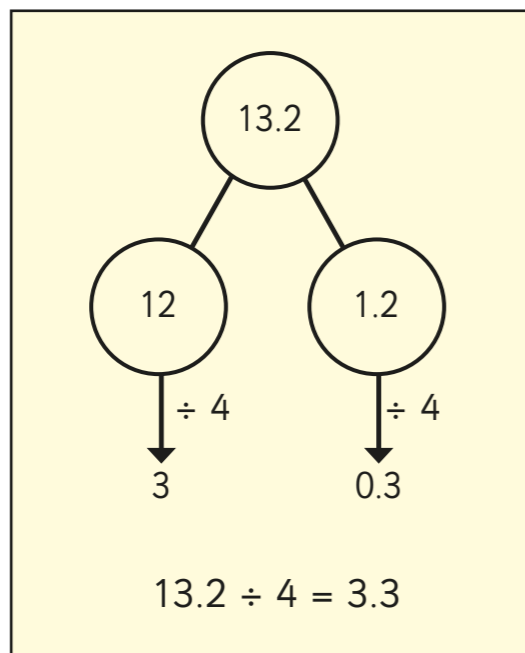
b) $14.8 \div 4 =$

e) $202.35 \div 3 =$

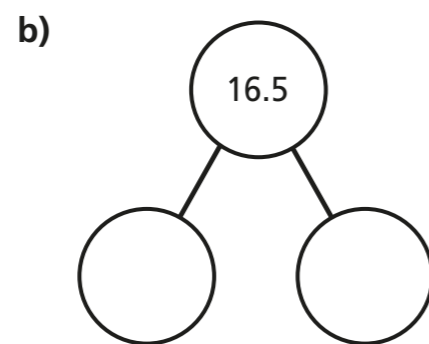
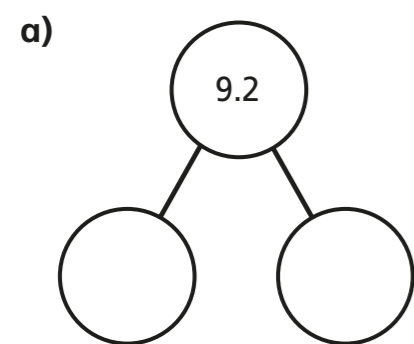
c) $18.48 \div 6 =$

f) $105.12 \div 9 =$

- 5 Esther solves $13.2 \div 4$ by partitioning 13.2 into two numbers that are easier to divide.



Use Esther's method to complete the part-whole model and calculation.



$$9.2 \div 4 = \square$$

$$16.5 \div 3 = \square$$

Compare answers with a partner. Did you partition your numbers in the same way?

- 6 Work out the divisions.

a) $9.64 \div 4 = \square$

$$96.4 \div 4 = \square$$

$$0.964 \div 4 = \square$$

$$9.64 \div 8 = \square$$

b) $19.44 \div 9 = \square$

$$19.53 \div 9 = \square$$

$$19.62 \div 9 = \square$$

- 7 Fill in the missing numbers.

$$3.6 \div 4 = 36 \div \square$$

$$3.6 \div 4 = \square \div 8$$

- 8 Complete the calculation.

$$8.4 \div \square = 4.2 \div \square$$

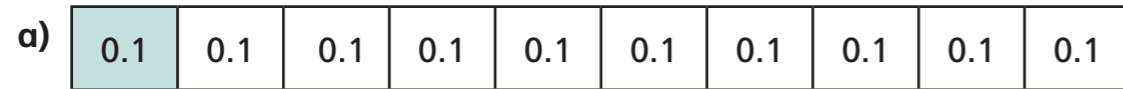
How many different solutions can you find?

What patterns do you notice? Talk about it with a partner.



Decimals as fractions

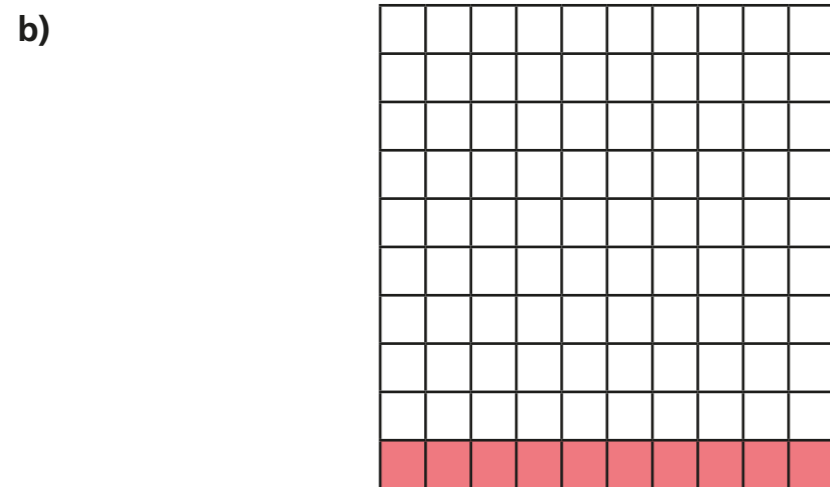
1 Complete the sentences.



The whole has been divided into equal parts.

Each part is worth

This is equivalent to



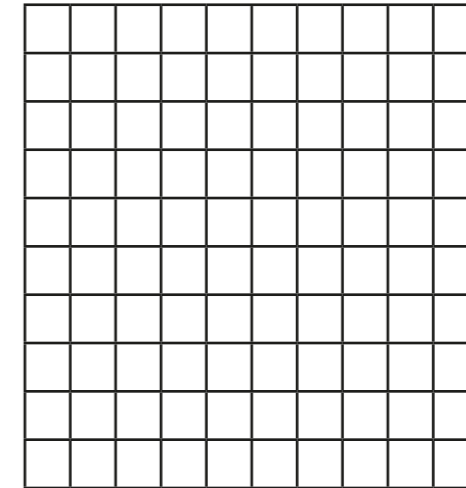
The whole has been divided into equal parts.

Each part is worth

parts out of are shaded.

This is equivalent to

2 a) Shade 0.17 of the hundred square.



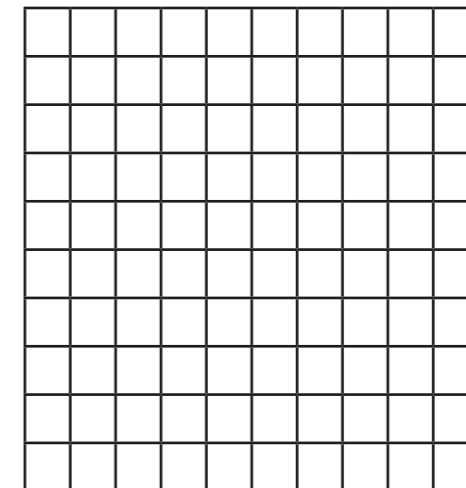
Complete the sentence.

parts out of are shaded.

Write 0.17 as a fraction.

0.17 =

b) Shade 0.2 of the hundred square.



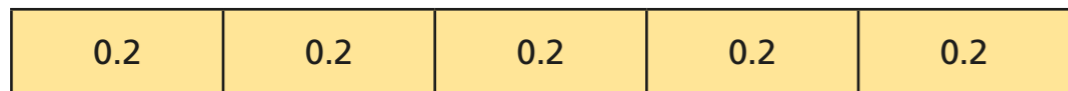
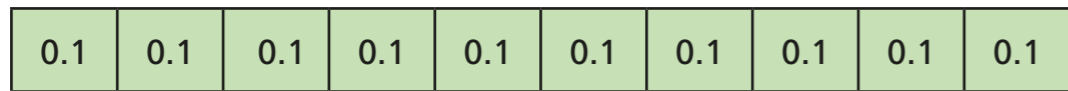
Complete the sentence.

parts out of are shaded.

Write 0.2 as a fraction in its simplest form.

0.2 =

3



Use the bar models to fill in the missing numbers.

$$0.2 = \frac{\square}{10} = \frac{1}{\square}$$

$$0.4 = \frac{\square}{10} = \frac{2}{\square}$$

$$\square = \frac{\square}{10} = \frac{4}{5}$$

4

Fill in the missing numbers.

a) $0.54 = \frac{\square}{100} = \frac{\square}{50}$

b) $0.6 = \frac{\square}{10} = \frac{\square}{5}$

c) $0.3 = \frac{\square}{10} = \frac{\square}{100}$

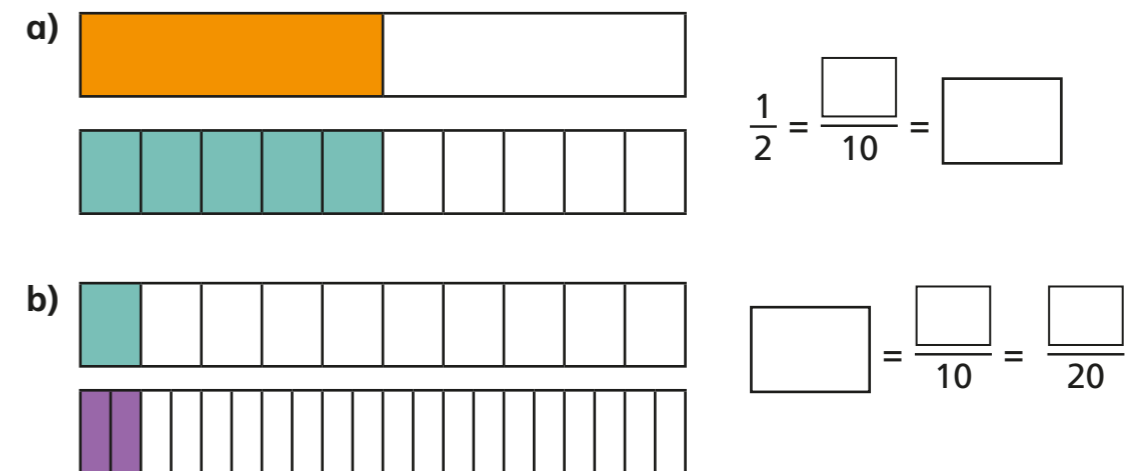
d) $\square = \frac{9}{100}$

e) $\square = \frac{9}{10}$

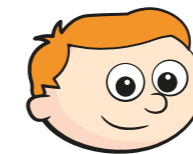
f) $\frac{21}{50} = \frac{\square}{100} = \square$

5

Use the bar models to fill in the missing numbers.



6



$0.3 = \frac{3}{10}$ so $0.37 = \frac{37}{10}$

Draw a diagram to show that Ron is wrong.



WRITING CHALLENGE



<https://pobble365.net/explorers>

Check out the Writing Challenge on the above link.

See if you can complete

‘Sick Sentences’

‘Question Time’

‘Perfect picture’

‘Sentence Challenge’

‘Complete the story’

Story starter!



Swish...Once again the blade of his oar sliced through the azure waters, perfectly in rhythm with his partner's strokes.

So, the rumour had been proven true - there was new life on the islands of the mysterious Southern Hemisphere.

It was time; time to prepare for another invasion; time to seek out new lands; time to conquer. But first, they needed to navigate the boat to the safety of the open ocean...

Question time!



- ▶ What period of time has the artist tried to recreate?
- ▶ Where in the world are they?
- ▶ What makes you think that?
- ▶ What emotions can you see on the oarsmen's faces?
- ▶ Why is there a baby in the back?
- ▶ Who are the men and where are they going?
- ▶ Why is the woman looking back to the shore?

Sentence challenge!

Onomatopoeia is the creation of a words that imitate natural sounds, such as swish and splash.

Is it possible to begin a sentence with an example of onomatopoeia ?

Can you end a sentence with an example of onomatopoeia?

What about trying to start and end a sentence with an example of onomatopoeia?



Sick sentences!

These sentences are 'sick' and need help to get better. Can you help?

- ▶ The men dug their oars into the sea.
- ▶ The boat moved forwards.
- ▶ The baby screamed.



Perfect picture!

Can you draw what the explorers are hoping they will discover on their adventure?



CREATIVE CHALLENGE



Design your own theme park.

Draw, paint, sketch, build, create on a device your own theme park.

Research what things a theme park has and then decide what you would like to include. Remember basic things like toilets, refreshments and sitting areas.

What kind of rides will it have?

If you like, you could link it to one of our topics, or even make it a waterpark.

Maybe you could magpie ideas from theme parks you've been to.

CREATIVE CHALLENGE



Board Games are incredibly big business.

If you could design your own board game what would it be about?

What would it be called?

What would the board, pieces and box look like?

How would it work?

See if you can design and make your own. It may take a couple of plays to get the 'dynamics' right, so make sure you test it with your family.

Creating a REALLY good game is quite a challenging task so give it lots of thought.

Don't feel you need to stick with the traditional format of board, dice, cards etc. You can include whatever things you like.