

Miss Philipps and Mrs Bowers Maths Home Learning

This week we begin a new unit on fractions. We are revising some of the basics because fraction work may have been missed in the Summer Term of Year 3 due to school closures. We begin with pictorial representations of fractions to aid understanding of fractions as numbers.

Remember that you can practise fractions whenever you cut up a pizza or a cake, or break up a bar of chocolate into squares. There are also useful interactive activities on this website:

<https://www.topmarks.co.uk/search.aspx?q=fractions>

Have fun! Contact us if you need any further help.

Monday 22nd February – Recap Unit and non-unit fractions

<https://vimeo.com/502315136>

Tuesday 23rd February – What is a fraction?

<https://vimeo.com/502527306>

Wednesday 24th February – Tenths

<https://vimeo.com/502315833>

Thursday 25th February – Count in tenths

<https://vimeo.com/502686139>

Friday 26th February – Equivalent fractions (1)

<https://vimeo.com/504289061>

1 Write fractions to complete the sentences.



a) of the counters are yellow.

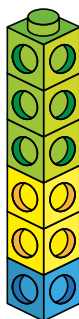
b) of the counters are red.

2 Write fractions to complete the sentences.

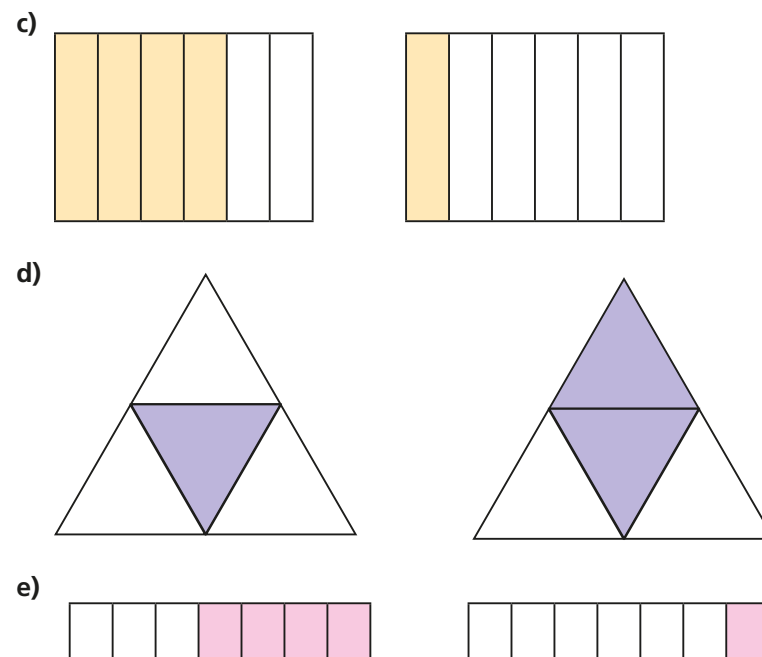
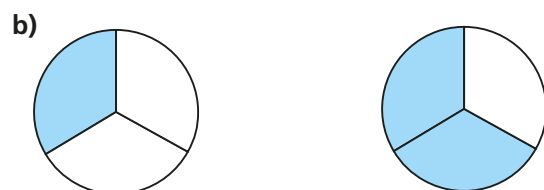
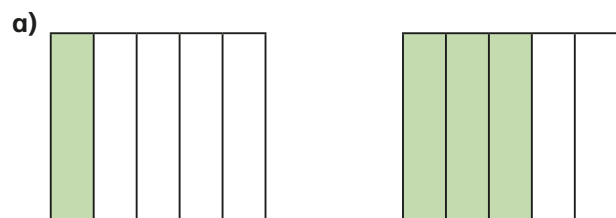
a) of the tower is green.

b) of the tower is yellow.

c) of the tower is blue.

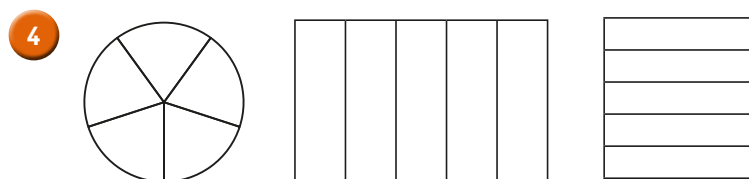


3 What fraction of each shape is shaded?



Which is the unit fraction in each pair of shapes?

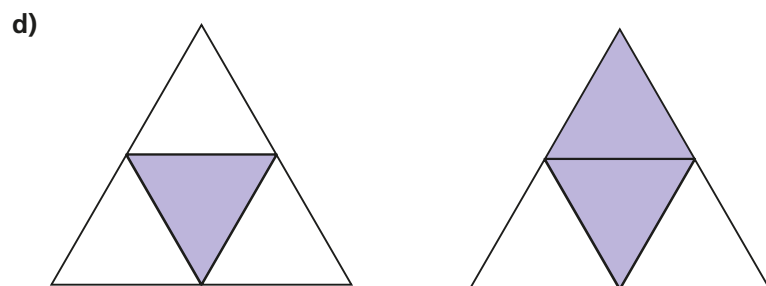
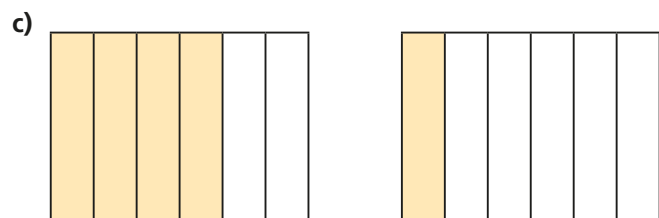
How did you know which was the unit fraction?



a) Colour $\frac{1}{5}$ of each shape.

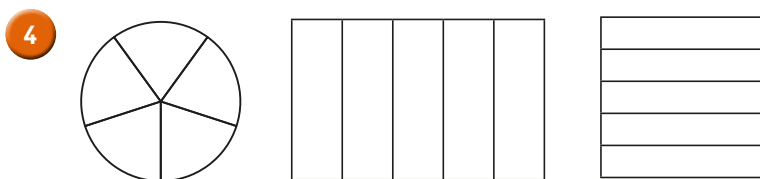
b) Colour $\frac{3}{5}$ of each shape.

What is the same and what is different about your answers?



Which is the unit fraction in each pair of shapes?

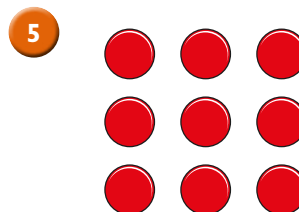
How did you know which was the unit fraction?



a) Colour $\frac{1}{5}$ of each shape.

b) Colour $\frac{3}{5}$ of each shape.

What is the same and what is different about your answers?



a) Circle $\frac{1}{3}$ of the counters.

b) Circle $\frac{2}{3}$ of the counters.

What is the same and what is different about your answers?

6 Write the fractions in the table.

$\frac{1}{6}$	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{1}{10}$	$\frac{1}{8}$
$\frac{3}{5}$	$\frac{1}{4}$	$\frac{1}{99}$	$\frac{6}{1}$	$\frac{1}{250}$

Unit fractions	Non-unit fractions

Write two more examples of your own in each column.

7 a) What is a unit fraction? What is a non-unit fraction?

Talk about it with a partner.

b) Complete the sentences.

An example of a unit fraction is

The numerator is always

An example of a non-unit fraction is

The numerator is always greater than

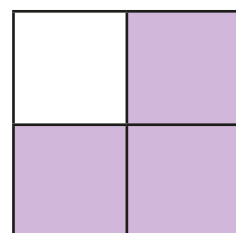
What is a fraction?

1 What fraction of each shape is shaded?

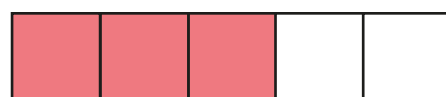
a)



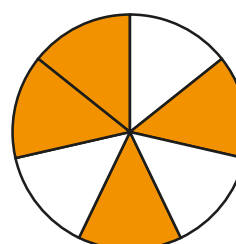
c)



b)

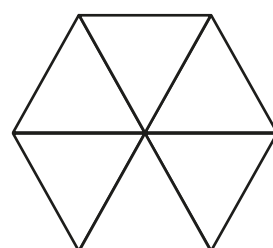


d)



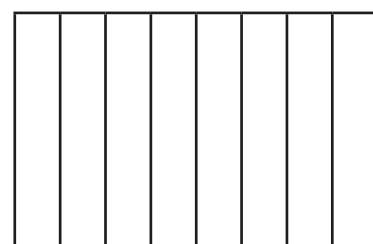
2 Shade each diagram to represent the fractions.

a)



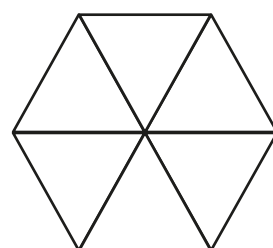
$\frac{1}{6}$

c)



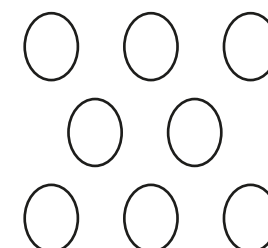
$\frac{5}{8}$

b)



$\frac{5}{6}$

d)



$\frac{5}{8}$

3 Circle the unit fractions.

$\frac{1}{3}$

$\frac{1}{5}$

$\frac{3}{5}$

$\frac{1}{8}$

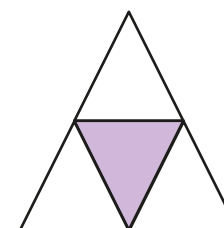
$\frac{2}{3}$

$\frac{10}{11}$

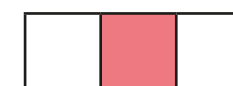
How do you know which are unit fractions?

4 a) Tick the shapes with one third shaded.

A



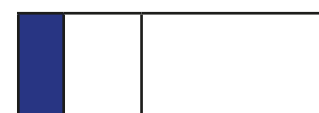
D



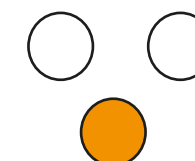
F



B



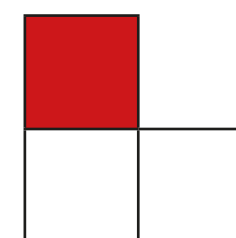
E



G



C



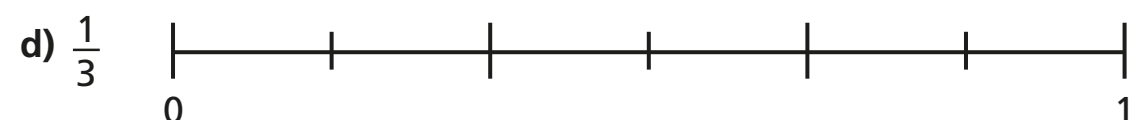
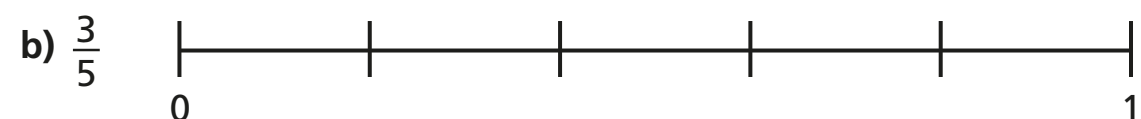
b) Complete the sentences to describe the shapes with one third shaded.

There are equal parts altogether.

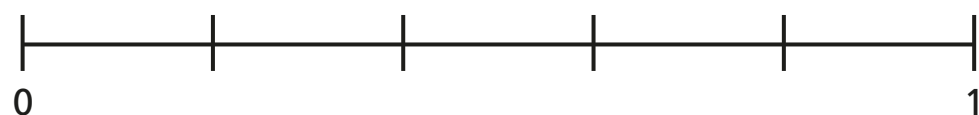
out of equal parts is shaded.

of the shape is shaded.

- 5 Draw an arrow to show the position of the fraction on the number line.



- 6 Draw an arrow to show the position of $\frac{5}{5}$ on the number line.



What do you notice?



- 7 Draw four different representations of $\frac{3}{4}$

- 8 Amir has drawn some 2D shapes.



- a) What fraction of the shapes are triangles?
- b) What fraction of the shapes are squares?
- c) What fraction of the shapes have four sides?
- d) Draw 2D shapes to match the description.
 $\frac{1}{5}$ are squares, $\frac{2}{5}$ are triangles, $\frac{3}{5}$ have more than 3 sides.

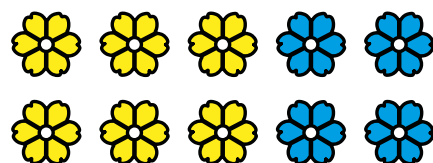
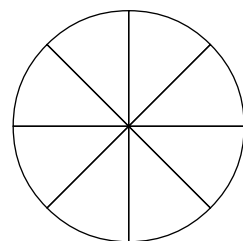
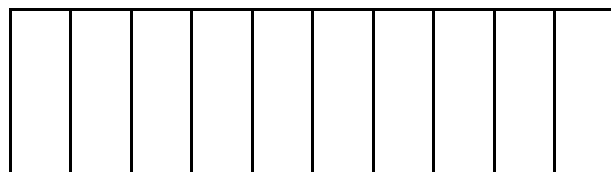
Compare shapes with a partner.

What is the same about your shapes? Is anything different?



Tenths

1 Tick the pictures that show tenths.



2 Write fractions to complete the sentences.

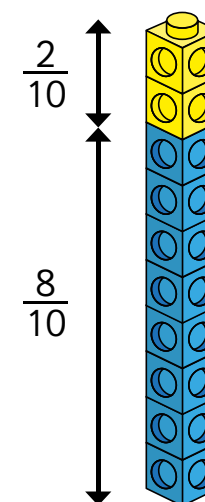


a) of the counters are yellow.

b) of the counters are red.

c) of the counters are green.

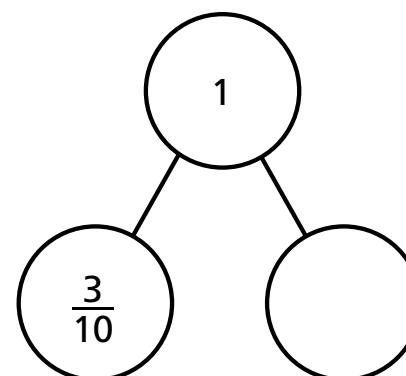
3 Amir has some blue and yellow cubes.
He makes a tower using 10 cubes.



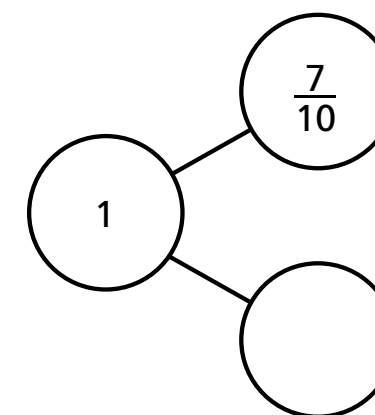
Investigate how many different towers
Amir can make with 10 cubes, if every tower
has a different fraction of blue and
yellow cubes.

4 Complete the part-whole models.

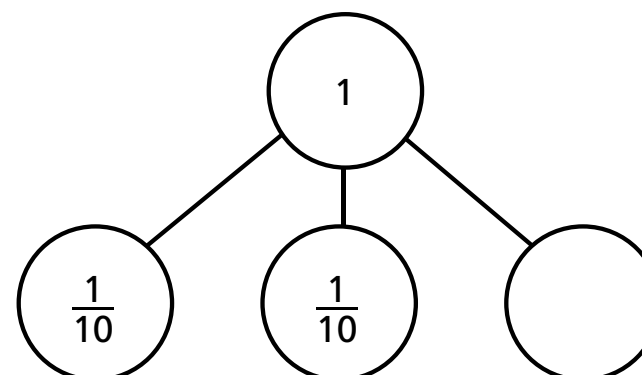
a)



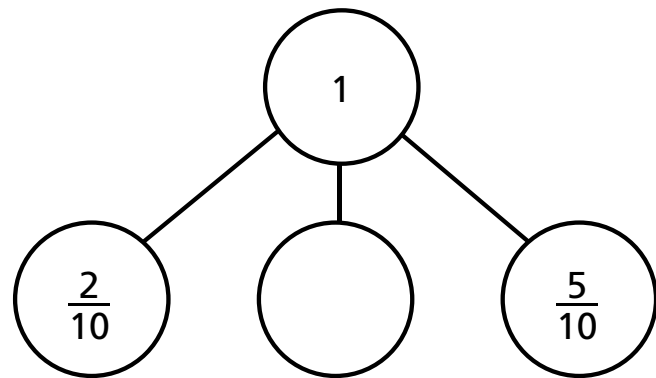
b)



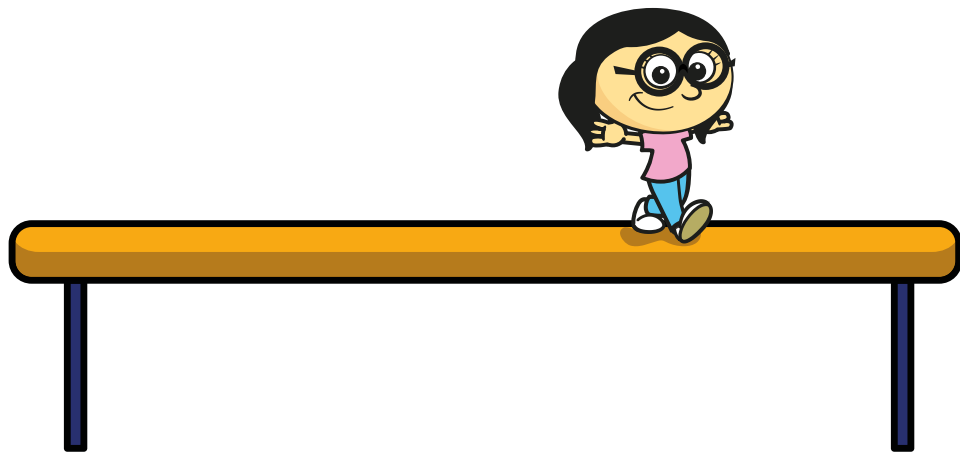
c)



d)

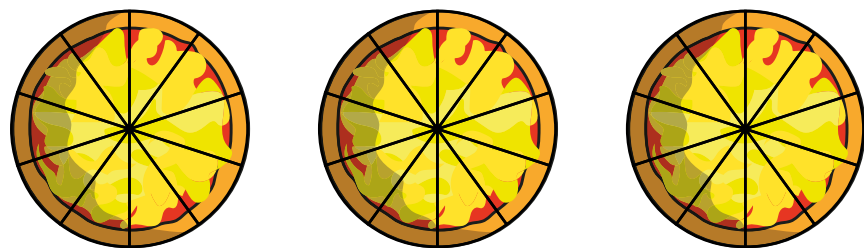


- 5 Annie has travelled $\frac{7}{10}$ of the way across a balance beam.



How many tenths does she have left to travel?

- 6 10 boys share 3 pizzas equally.



What fraction of a pizza do they each get?

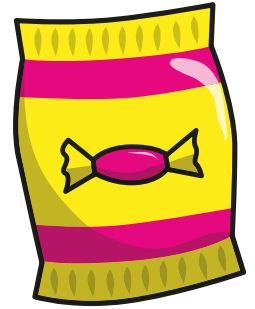
- 7 Dani has a bag of sweets.

$\frac{1}{2}$ of the sweets are red.

$\frac{3}{10}$ of the sweets are yellow.

The rest are green.

What fraction of the sweets are green?



- 8 Mo also has a bag of sweets.

$\frac{4}{10}$ of his sweets are red.

The rest are green or yellow.

What fraction of Mo's sweets could be green?

What fraction could be yellow?

How many possible answers can you find?

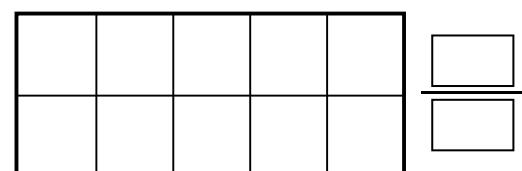
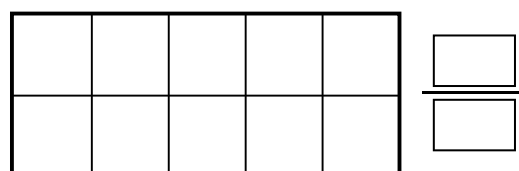
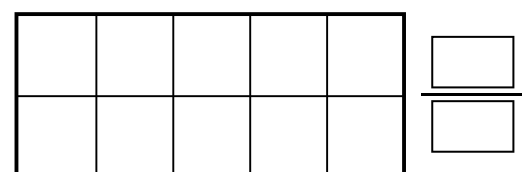
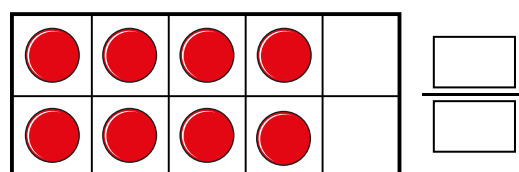
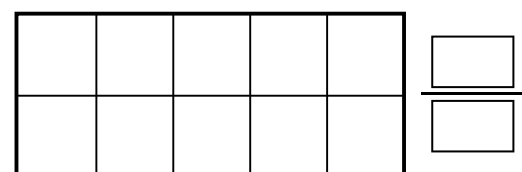
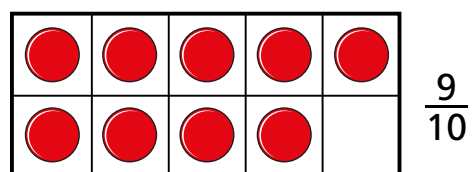
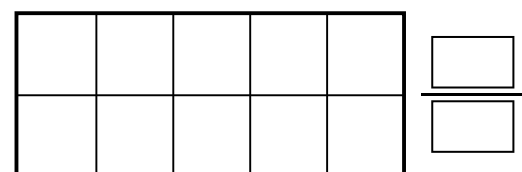
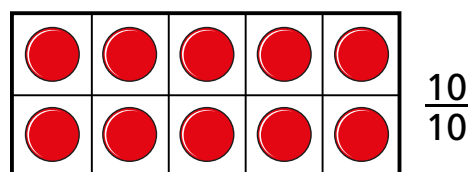
Compare answers with a partner.



Count in tenths



1 Continue the sequence.

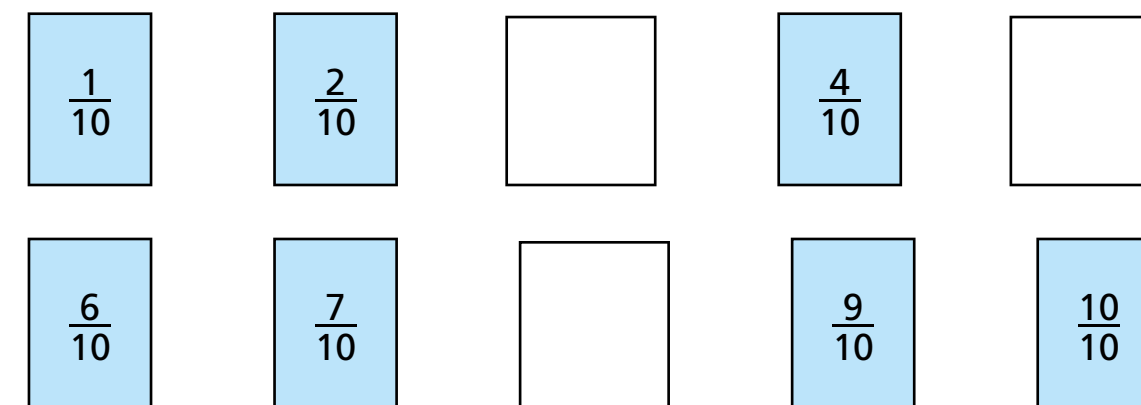


2 Continue the sequence.

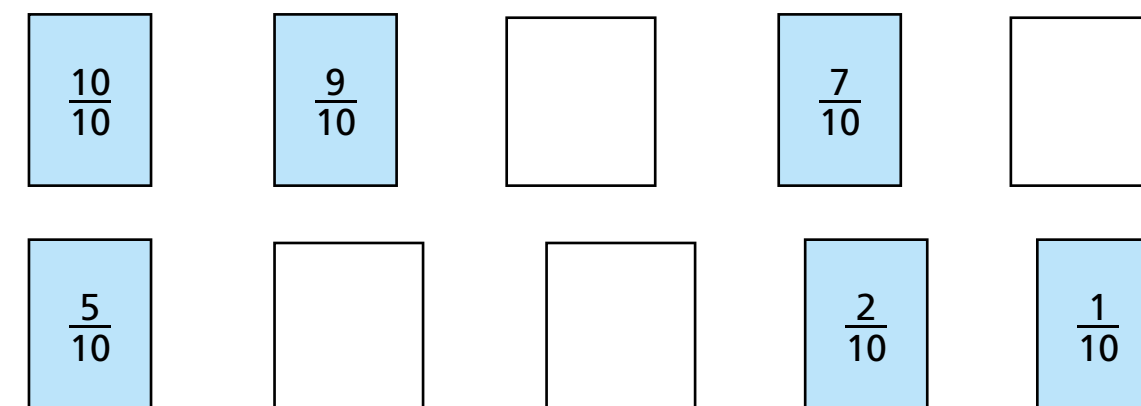


3 Write the missing fractions in each sequence.

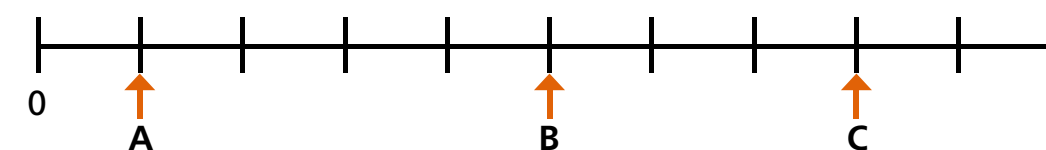
a)



b)



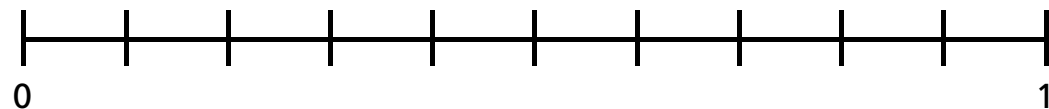
4 What fraction is each arrow pointing to?



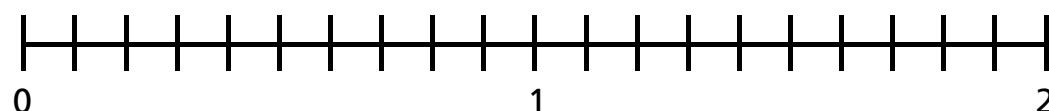
A = $\frac{\quad}{\quad}$ B = $\frac{\quad}{\quad}$ C = $\frac{\quad}{\quad}$

5 Write the fractions in the correct places on the number lines.

a) $\frac{5}{10}$ $\frac{9}{10}$ $\frac{3}{10}$ $\frac{10}{10}$

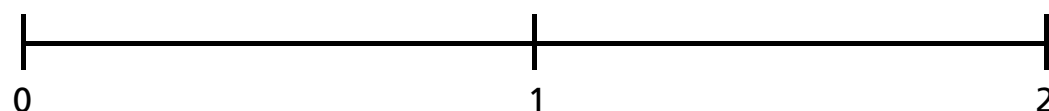


b) $\frac{6}{10}$ $\frac{14}{10}$ $\frac{18}{10}$

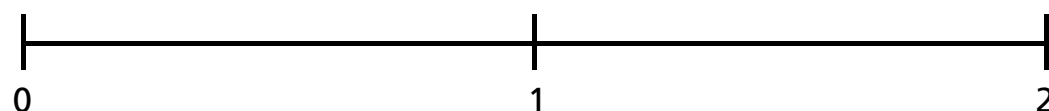


6 Draw and label arrows to estimate the position of the fractions on the number lines.

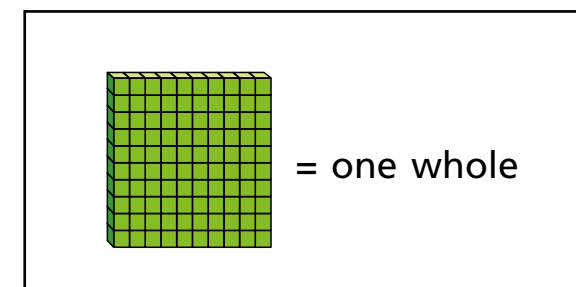
a) $\frac{5}{10}$ $\frac{15}{10}$ $\frac{20}{10}$



b) $\frac{3}{10}$ $\frac{11}{10}$ $\frac{19}{10}$

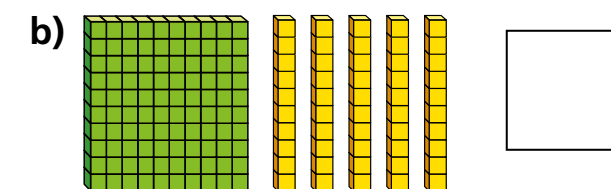
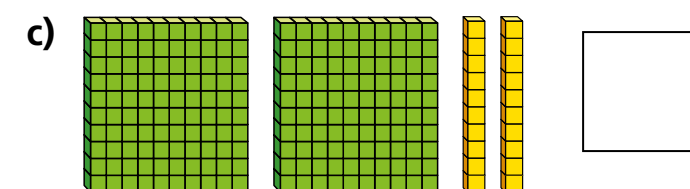
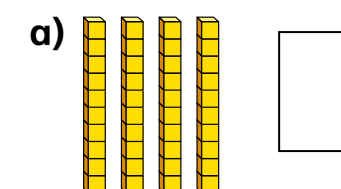


7

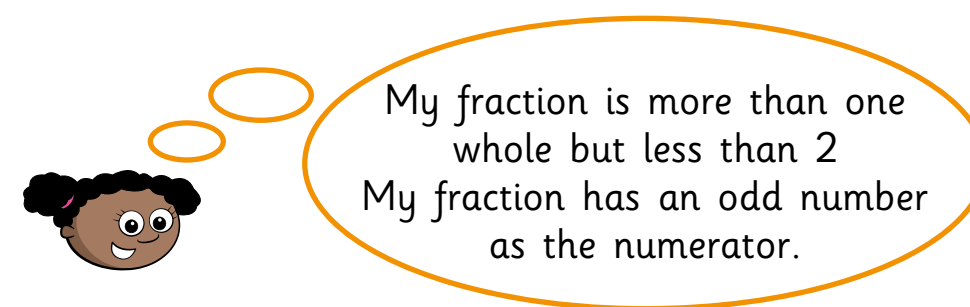


= one whole

What number is represented in each picture?



8 Whitney is thinking of a fraction.



What could Whitney's fraction be?

List all the possible fractions.

Compare answers with a partner.

Equivalent fractions (1)



1 Shade the bar models to represent the fractions.

a) Shade $\frac{1}{2}$ of the bar model.

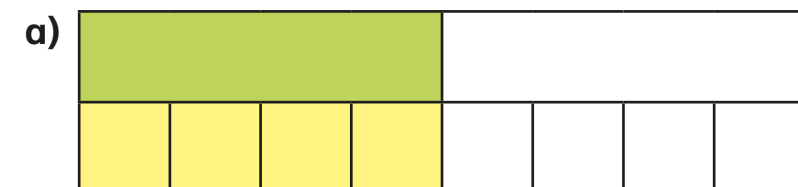


b) Shade $\frac{2}{4}$ of the bar model.

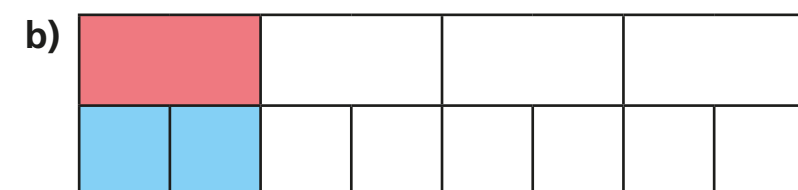


What do you notice?

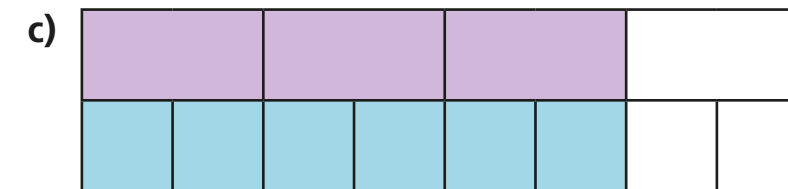
2 Complete the equivalent fractions.



$$\frac{1}{2} = \frac{\boxed{}}{8}$$

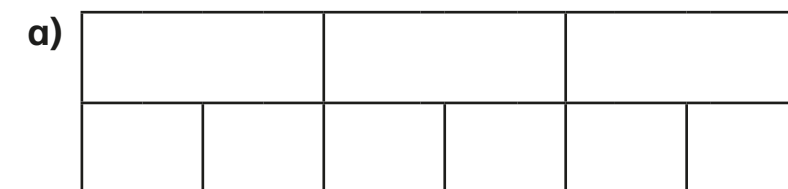


$$\frac{1}{4} = \frac{2}{\boxed{}}$$

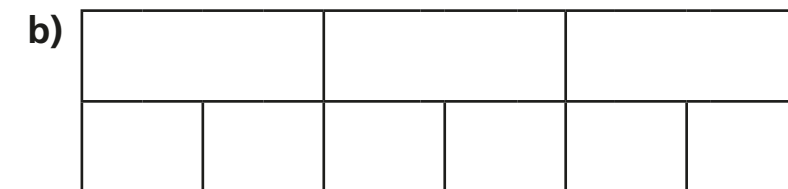


$$\frac{3}{4} = \frac{6}{\boxed{}}$$

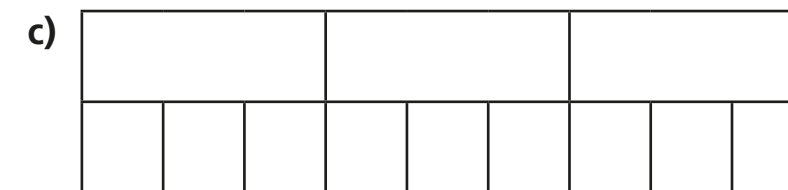
3 Shade the bar models to represent the equivalent fractions.



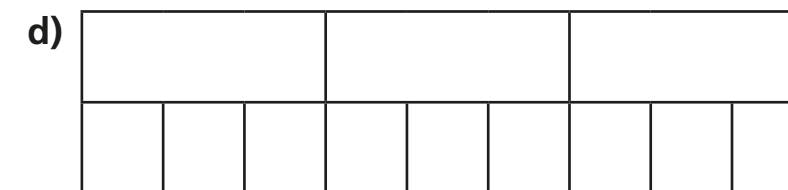
$$\frac{1}{3} = \frac{2}{6}$$



$$\frac{2}{3} = \frac{4}{6}$$



$$\frac{1}{3} = \frac{3}{9}$$

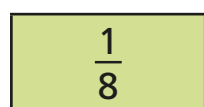
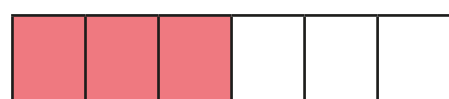
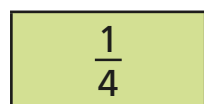
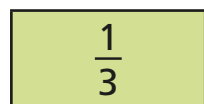
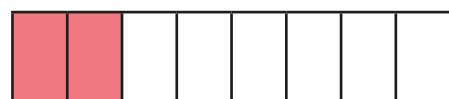
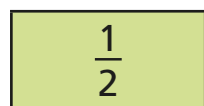


$$\frac{2}{3} = \frac{6}{9}$$

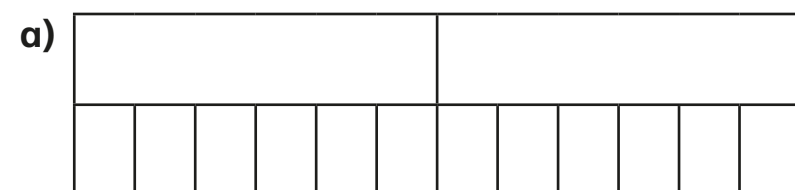
Can you find any more equivalent fractions using the bar models?



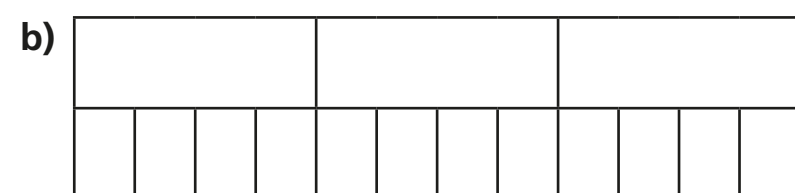
- 4 Match each bar model to its equivalent fraction.



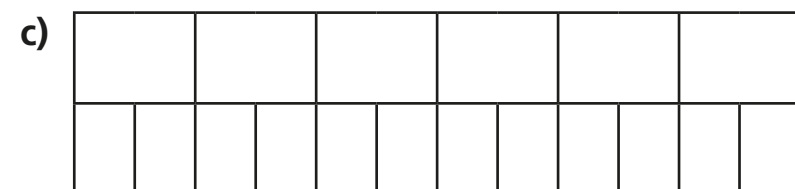
- 5 Shade the bar models to complete the equivalent fractions.



$$\frac{1}{2} = \frac{\square}{12}$$



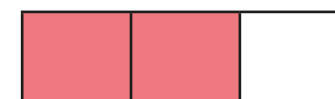
$$\frac{1}{3} = \frac{\square}{12}$$



$$\frac{1}{6} = \frac{\square}{12}$$



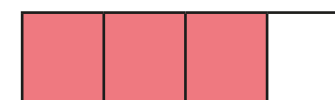
- 6 The bar models represent fractions.



A



C



B

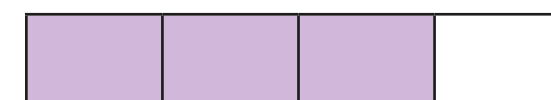


D

Which is the odd one out? _____

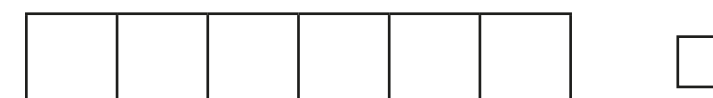
Why do you think this?

- 7 This bar model represents $\frac{3}{4}$



Tick the bar models that can be used to show a fraction that is equivalent to $\frac{3}{4}$

Shade the bar models to support your answers.


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Talk to a partner about your answers.

