

Unit and non-unit fractions

1 Write fractions to complete the sentences.



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

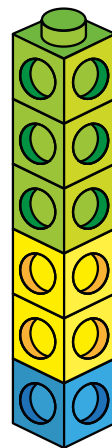
b) $\frac{2}{3}$ of the counters are red.

2 Write fractions to complete the sentences.

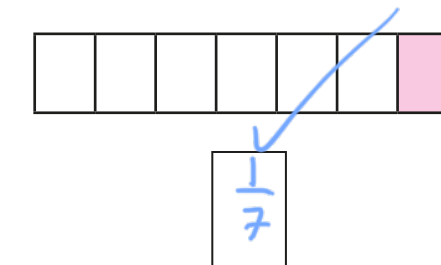
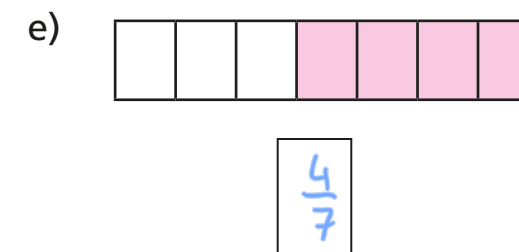
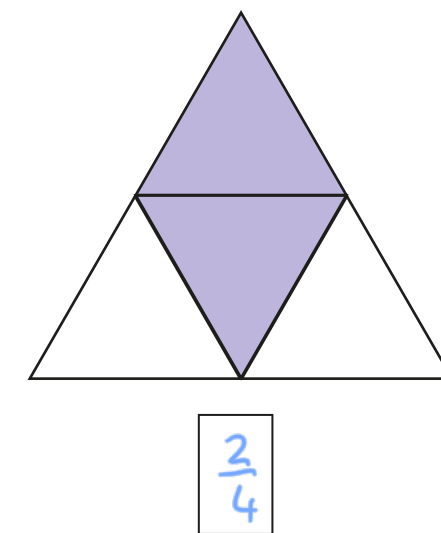
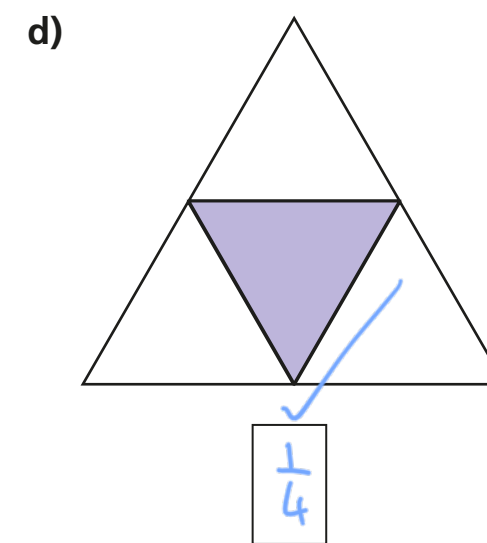
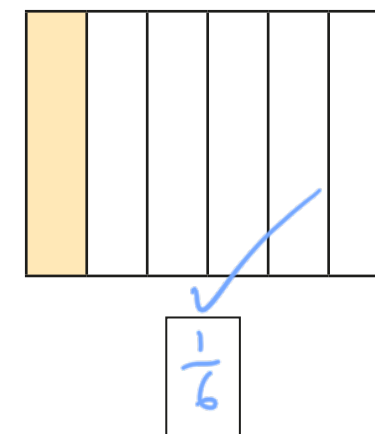
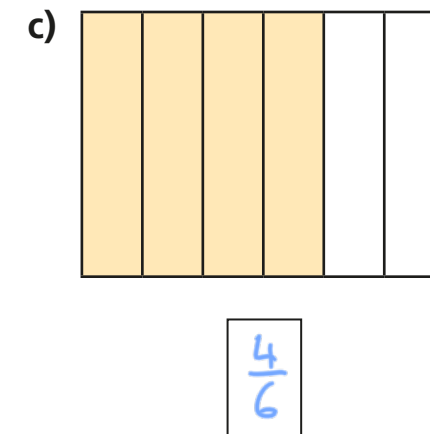
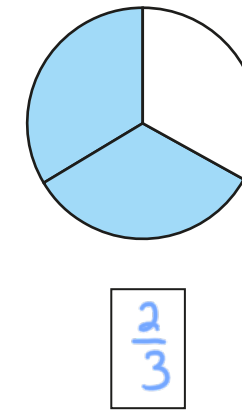
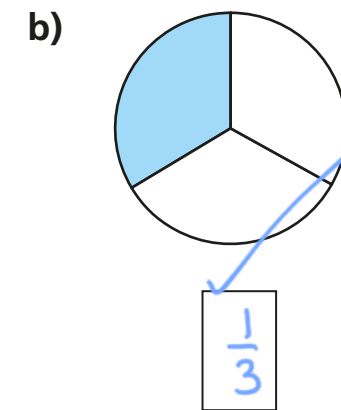
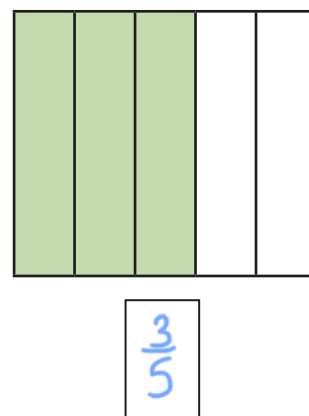
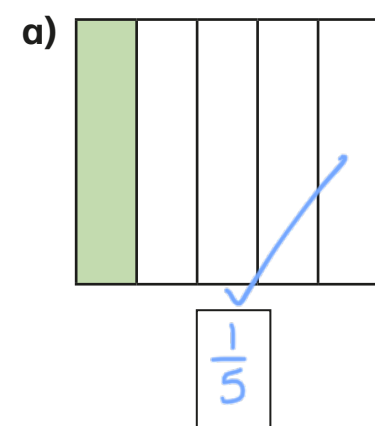
a) $\frac{3}{6}$ of the tower is green.

b) $\frac{2}{6}$ of the tower is yellow.

c) $\frac{1}{6}$ of the tower is blue.



3 What fraction of each shape is shaded?

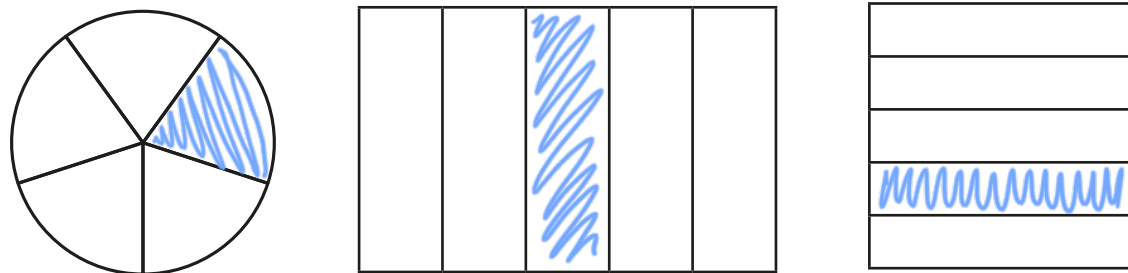


Tick the unit fraction in each pair of shapes.

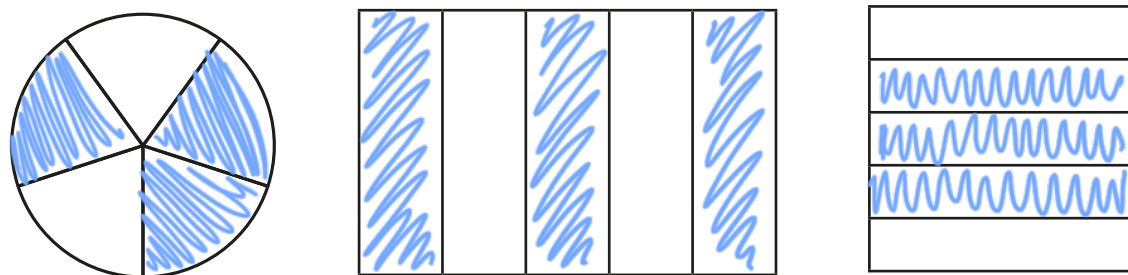
How did you know which was the unit fraction?



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

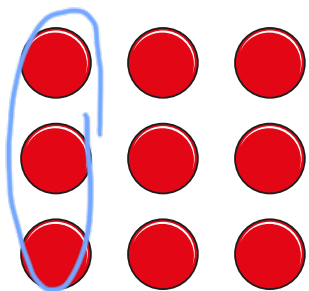


- b) Colour $\frac{3}{5}$ of each shape.

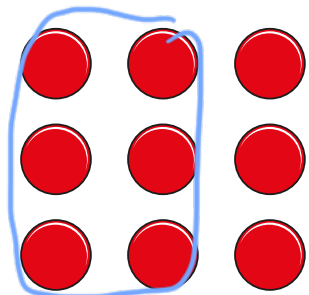


What is the same and what is different about your answers?

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

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 $\frac{1}{5}$

The numerator is always 1

An example of a non-unit fraction is $\frac{3}{5}$

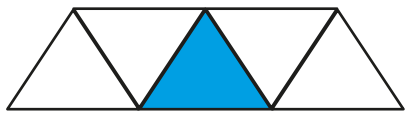
The numerator is always greater than 1



What is a fraction?

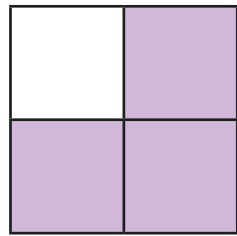
1 What fraction of each shape is shaded?

a)



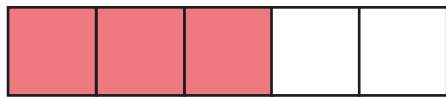
$\frac{1}{5}$

c)



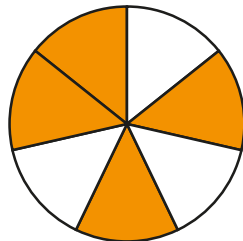
$\frac{3}{4}$

b)



$\frac{3}{5}$

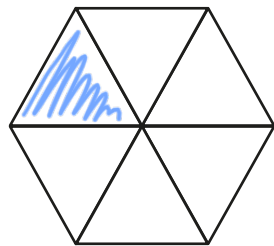
d)



$\frac{4}{7}$

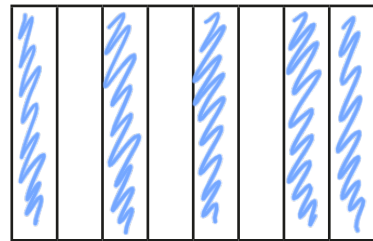
2 Shade each diagram to represent the fractions.

a)



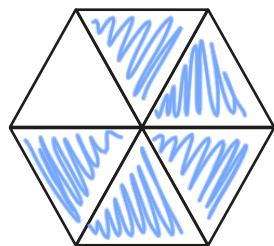
$\frac{1}{6}$

c)



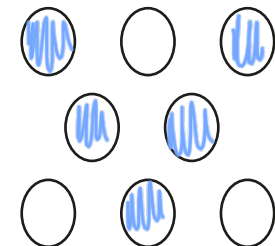
$\frac{5}{8}$

b)



$\frac{5}{6}$

d)



$\frac{5}{8}$

3 Circle the unit fractions.

$\frac{1}{3}$

$\frac{1}{5}$

$\frac{3}{5}$

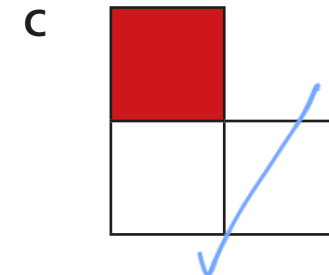
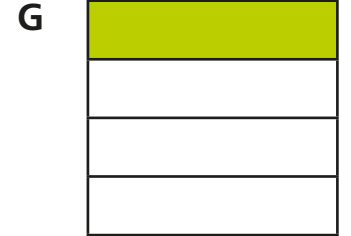
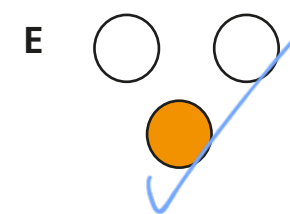
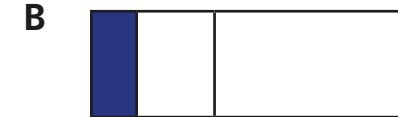
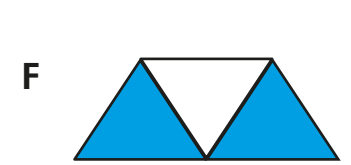
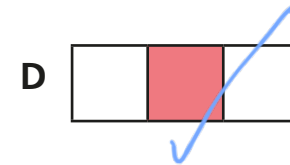
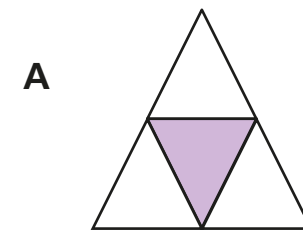
$\frac{1}{8}$

$\frac{2}{3}$

$\frac{10}{11}$

How do you know which are unit fractions?

4 a) Tick the shapes with one third shaded.



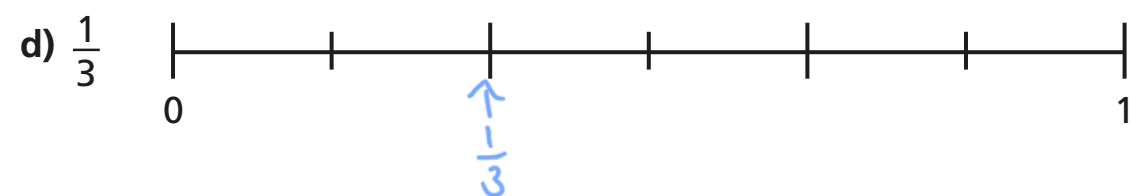
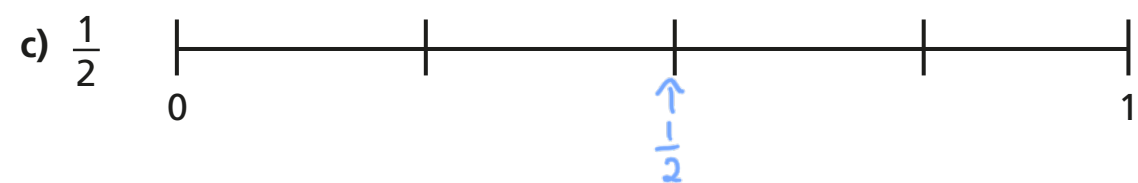
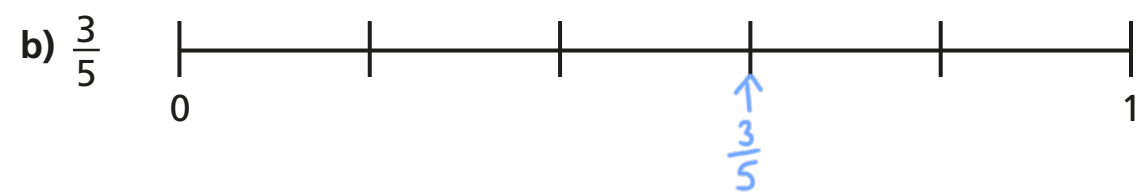
b) Complete the sentences to describe the shapes with one third shaded.

There are $\boxed{3}$ equal parts altogether.

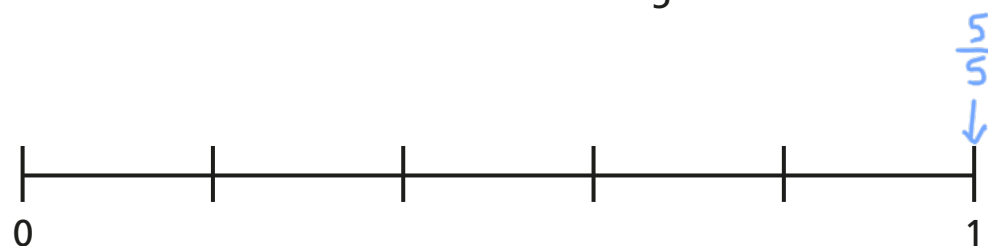
$\boxed{1}$ out of $\boxed{3}$ equal parts is shaded.

$\boxed{\frac{1}{3}}$ 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 $\frac{3}{4}$

Various answers e.g.



- 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?

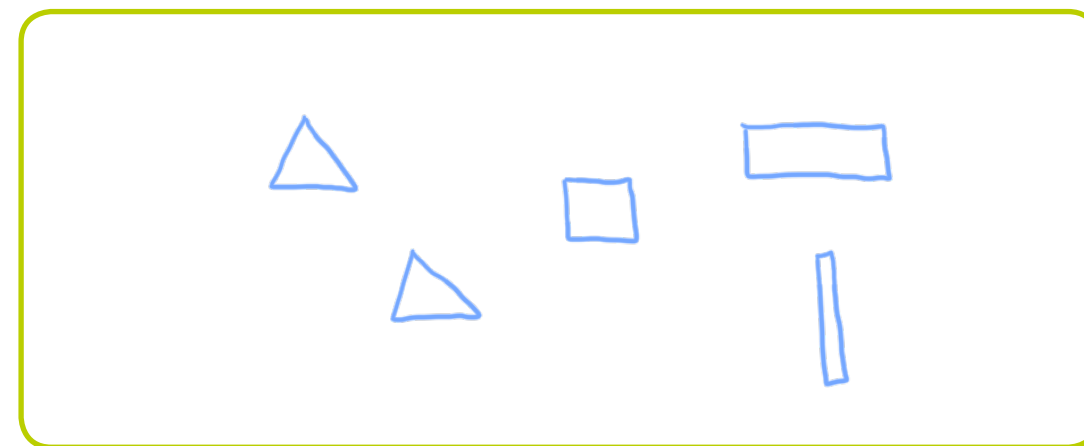
$\frac{1}{7}$

$\frac{4}{7}$

$\frac{6}{7}$

- 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?



Equivalent fractions (1)



1 Shade the bar models to represent the fractions.

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

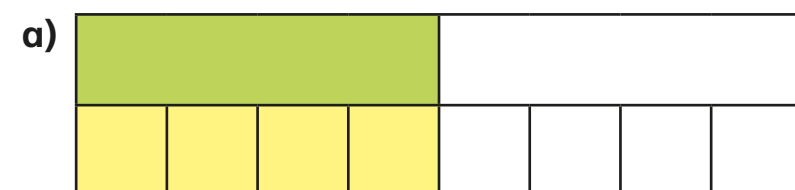


b) Shade $\frac{2}{4}$ of the bar model.

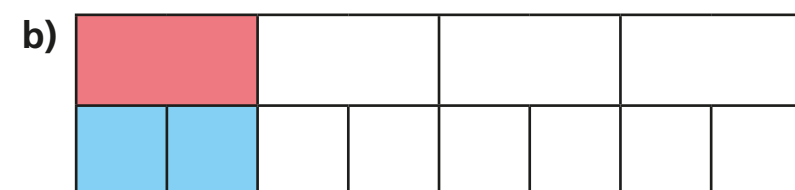


What do you notice?

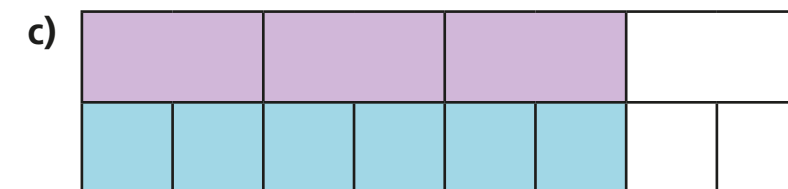
2 Complete the equivalent fractions.



$$\frac{1}{2} = \frac{\boxed{4}}{8}$$



$$\frac{1}{4} = \frac{2}{\boxed{8}}$$

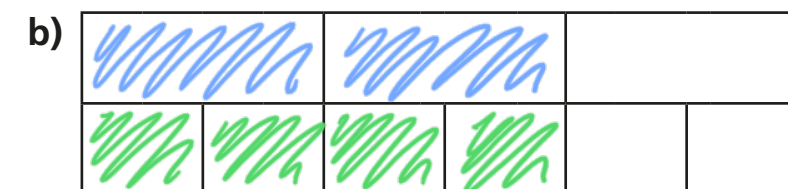


$$\frac{3}{4} = \frac{6}{\boxed{8}}$$

3 Shade the bar models to represent the equivalent fractions.



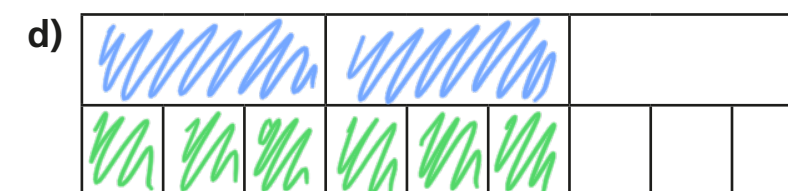
$$\frac{1}{3} = \frac{2}{6}$$



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



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

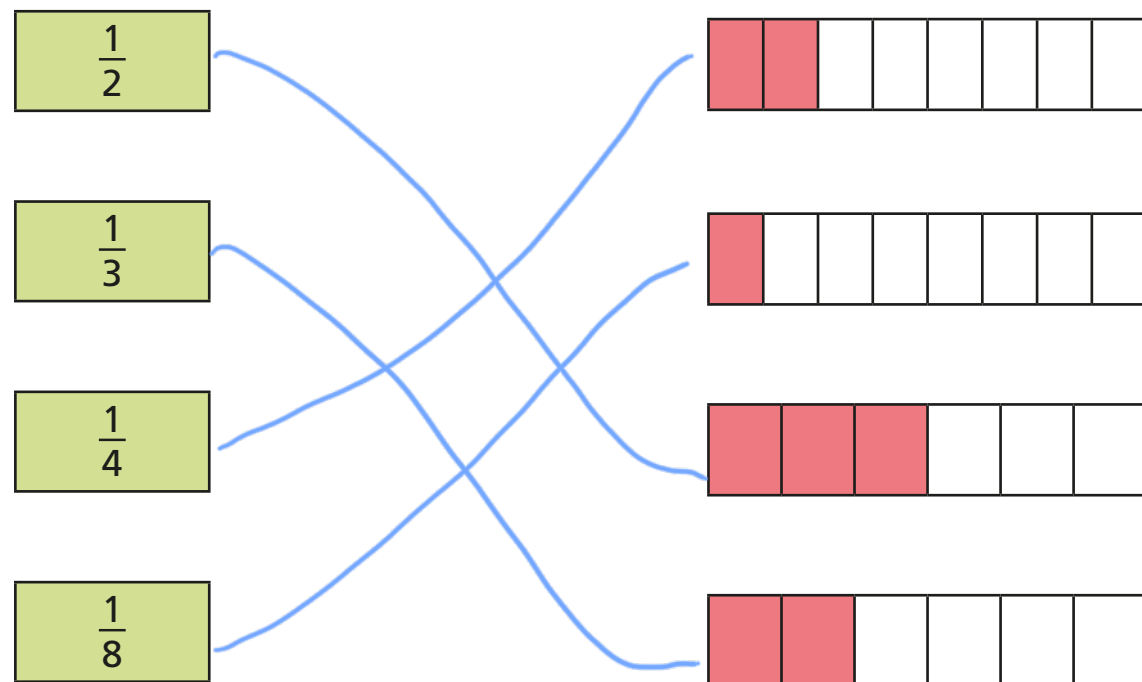


$$\frac{2}{3} = \frac{6}{9}$$

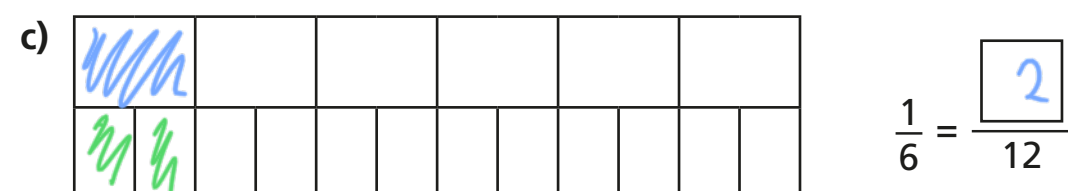
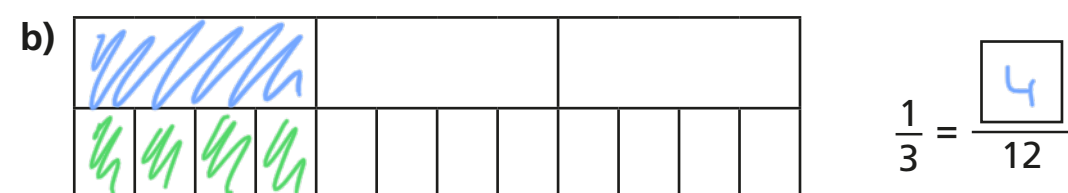
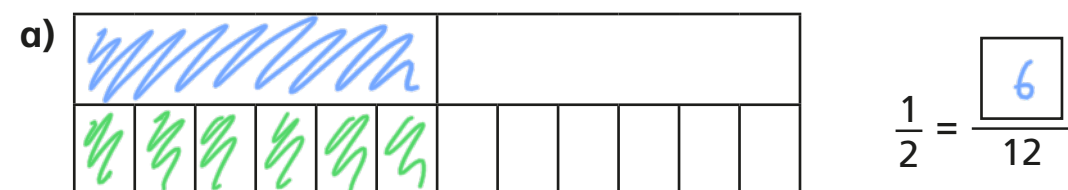
Can you find any more equivalent fractions using the bar models?



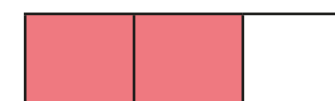
- 4 Match each bar model to its equivalent fraction.



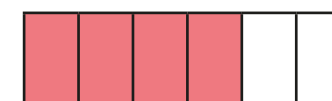
- 5 Shade the bar models to complete the equivalent fractions.



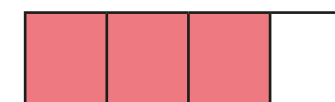
- 6 The bar models represent fractions.



A



C



B

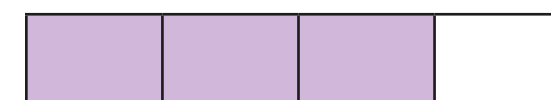


D

Which is the odd one out? B

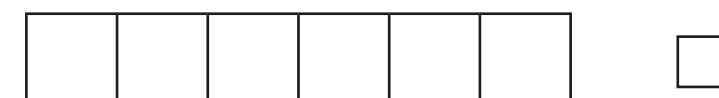
Why do you think this?

- 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.


☐

☒

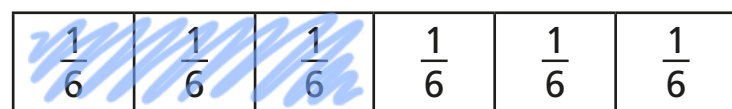
☒

Talk to a partner about your answers.

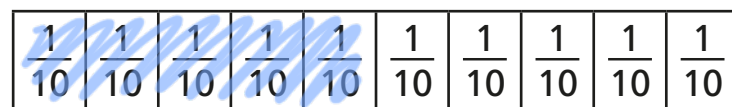
Equivalent fractions (1)



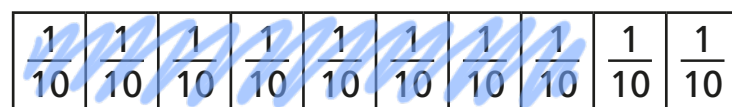
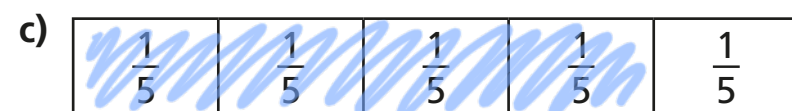
1 Shade the bar models to represent the equivalent fractions.



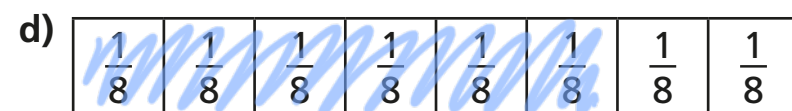
$$\frac{1}{2} = \frac{3}{6}$$



$$\frac{1}{2} = \frac{5}{10}$$

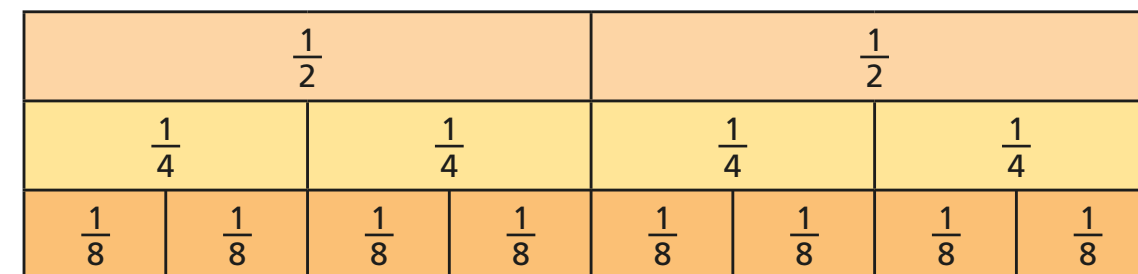


$$\frac{4}{5} = \frac{8}{10}$$



$$\frac{6}{8} = \frac{3}{4}$$

2 Use the fraction wall to complete the equivalent fractions.



a) $\frac{1}{2} = \frac{2}{4}$

c) $\frac{2}{4} = \frac{4}{8}$

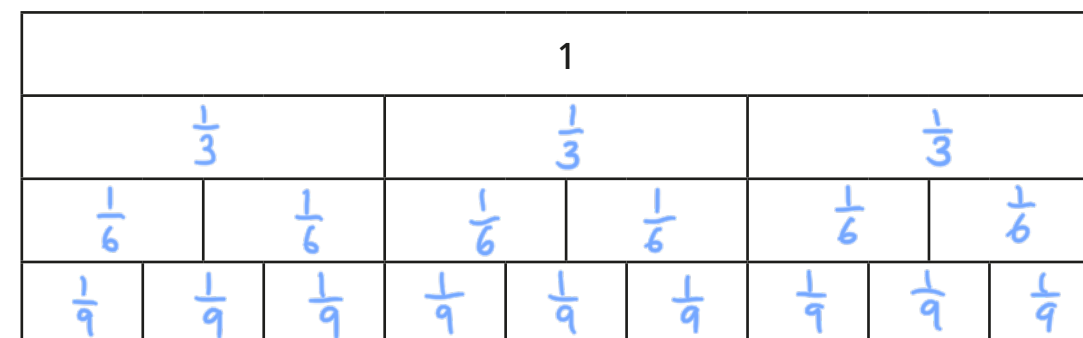
e) $\frac{6}{8} = \frac{3}{4}$

b) $\frac{1}{2} = \frac{4}{8}$

d) $\frac{2}{8} = \frac{1}{4}$

f) $\frac{2}{2} = \frac{4}{4} = \frac{8}{8}$

3 a) Label the fractions on the fraction wall.



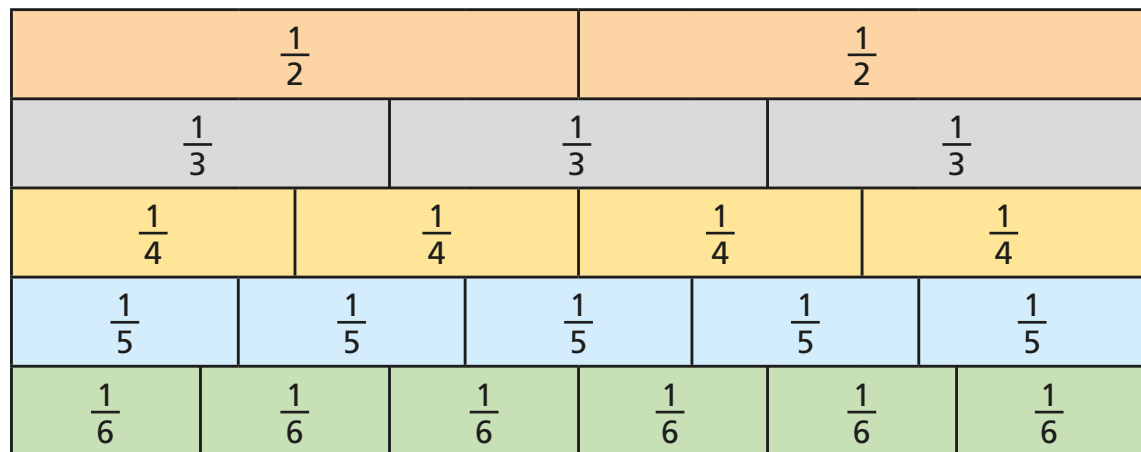
b) Use the fraction wall to complete the equivalent fractions.

$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$$

$$\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$$

$$\frac{3}{8} = \frac{6}{16} = \frac{9}{24} = 1$$

4 Here is a fraction wall.



Is each statement true or false? Tick your answers.

- | | True | False |
|---|-------------------------------------|-------------------------------------|
| a) $\frac{1}{2}$ is equivalent to $\frac{3}{6}$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) $\frac{2}{3}$ is equivalent to $\frac{3}{4}$ | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) $\frac{2}{4}$ is equivalent to $\frac{3}{6}$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) $\frac{2}{3}$ is equivalent to $\frac{4}{5}$ | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) $\frac{2}{3}$ is equivalent to $\frac{4}{6}$ | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) $\frac{3}{5}$ is equivalent to $\frac{4}{6}$ | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Write your own equivalent fractions statements.

Ask a partner to say if they are true or false.

5 Are the statements always, sometimes or never true?
Circle your answer.

Draw a diagram to support your answer.

a) The greater the numerator, the greater the fraction.

always

sometimes

never

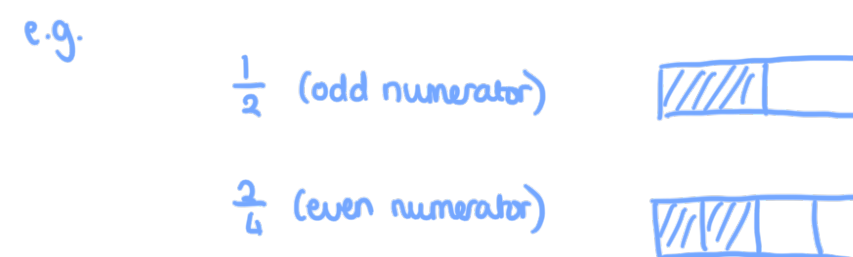


b) Fractions equivalent to one half have even numerators.

always

sometimes

never



c) If a fraction is equivalent to one half, the denominator will be double the numerator.

always

sometimes

never



No matter how many parts it's split into, the number shaded (numerator) will be half the total parts (denominator).

