

Miss Philipps and Mrs Bowers Maths Home Learning

This week we begin a new unit on fractions. 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 1st March – Equivalent fractions recap

<https://vimeo.com/504316253>

Tuesday 2nd March – Equivalent fractions

<https://vimeo.com/504472462>

Wednesday 3rd March – Equivalent fractions

<https://vimeo.com/504801539>

Thursday 4th March – Fractions greater than 1

<https://vimeo.com/505143644>

Friday 5th March – Count in fractions

<https://vimeo.com/506082065>

Equivalent fractions (2)

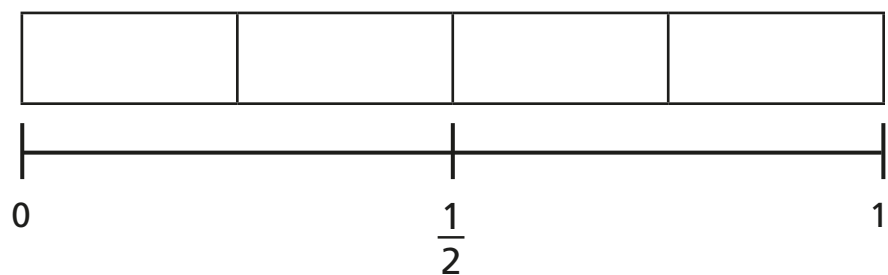


1 Shade the bar models to represent the fractions.

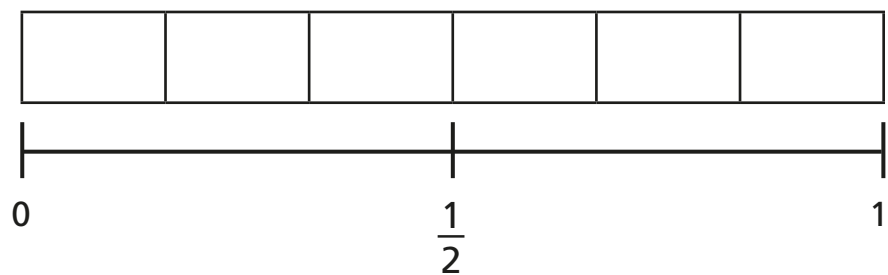
a) Shade $\frac{1}{2}$ of the bar model.



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



c) Shade $\frac{3}{6}$ of the bar model.

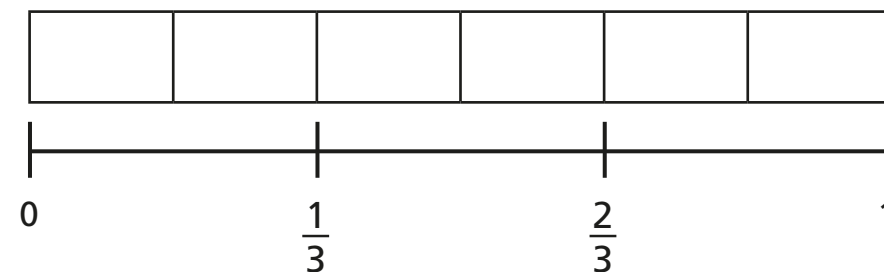


d) What do you notice?

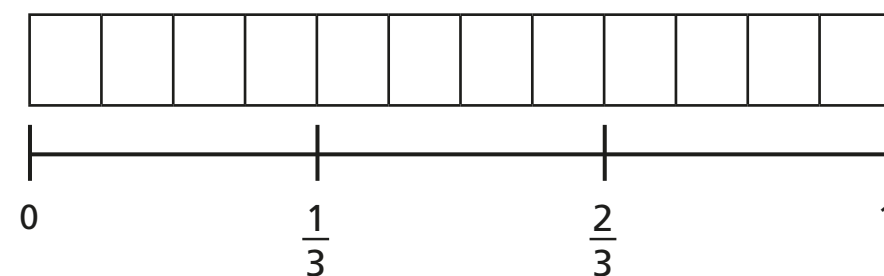
e) Write another fraction that is equivalent to $\frac{1}{2}$

2 Shade $\frac{2}{3}$ of each bar model.

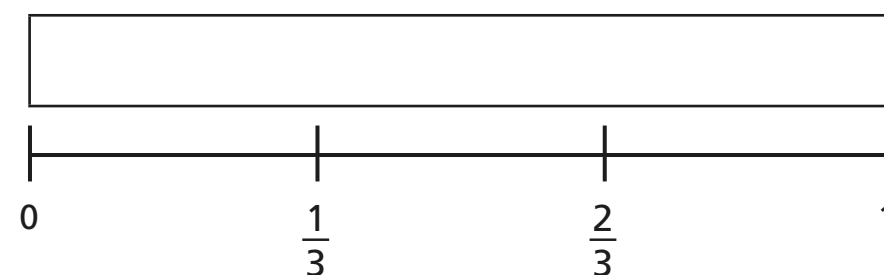
a)



b)



c)

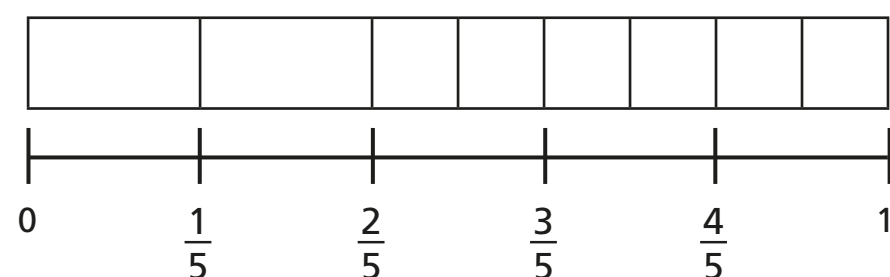
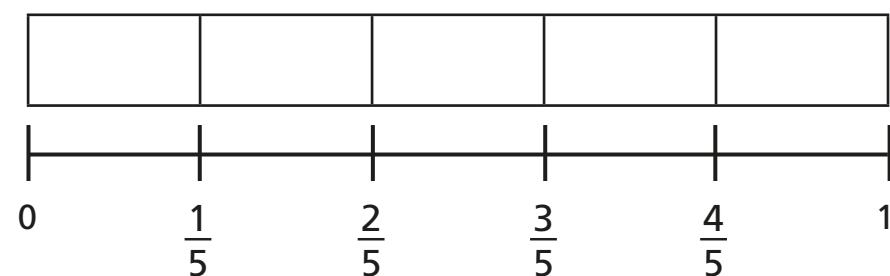


d) Use your answers to parts a), b) and c) to complete the equivalent fractions.

$$\frac{2}{3} = \frac{\square}{6} = \frac{8}{\square} = \frac{\square}{15}$$



- 3 Mo is finding equivalent fractions.



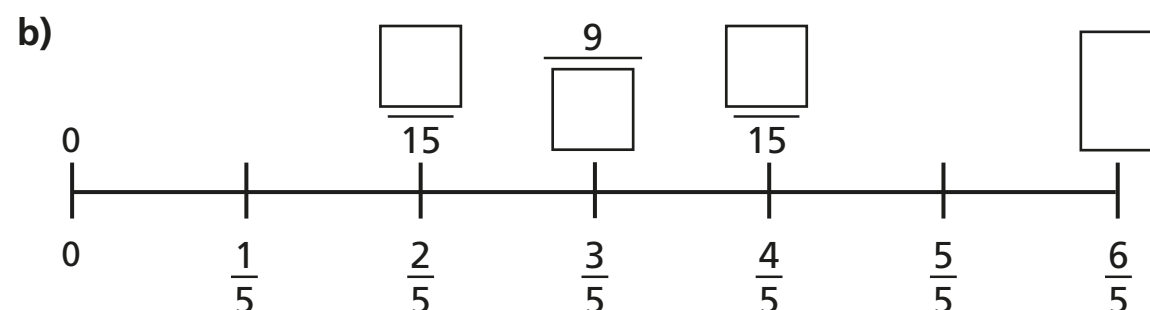
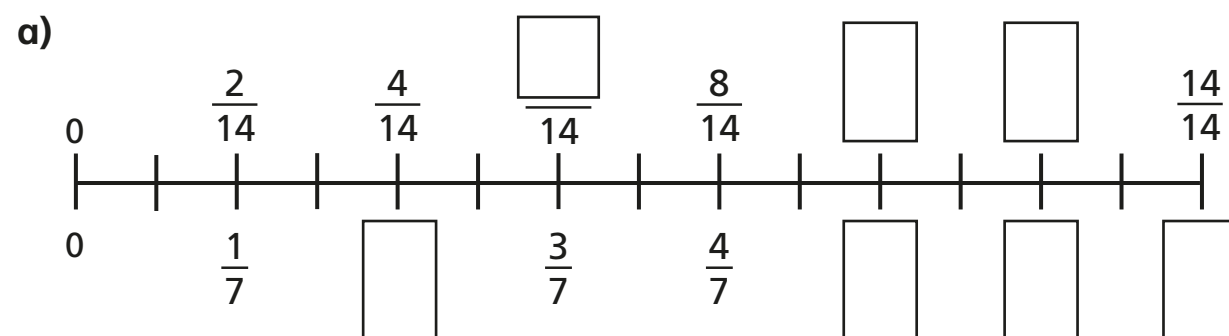
$\frac{6}{8}$ is equivalent to $\frac{4}{5}$

Do you agree with Mo? _____

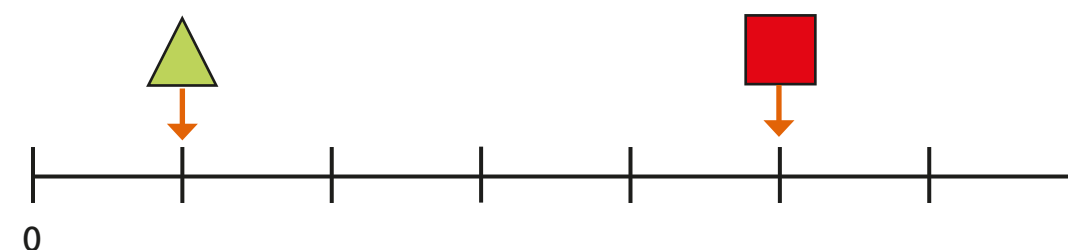
Explain your answer.



- 4 Find the missing numbers.



- 5 Here is a number line.



- a) What fraction is each shape pointing to?

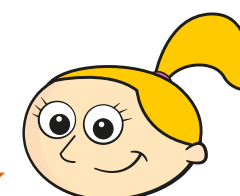
 =  =

- b) A circle is halfway between the triangle and the square.

Draw the circle on the number line.

- c)

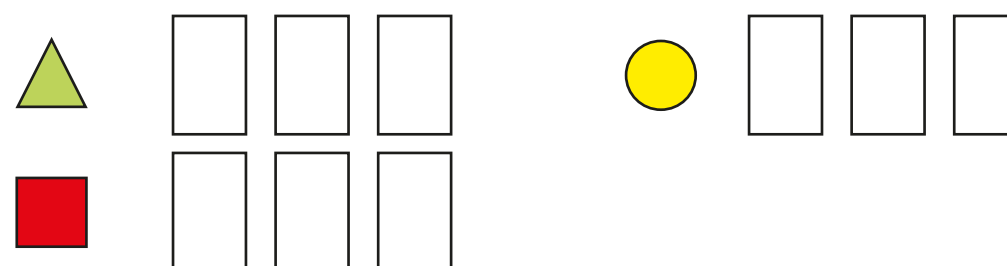
The circle is pointing to $\frac{9}{21}$



Do you agree with Eva? _____

Show how you worked this out.

- d) Write three equivalent fractions for each shape.



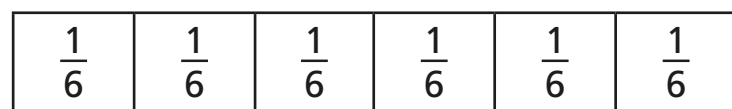
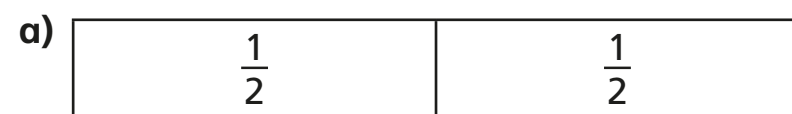
Compare answers with a partner.



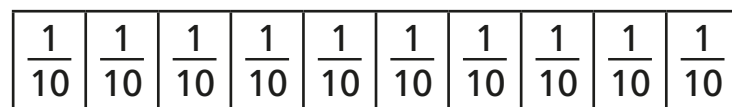
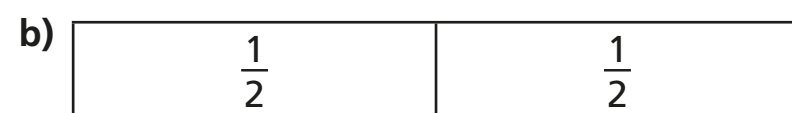
Equivalent fractions (1)



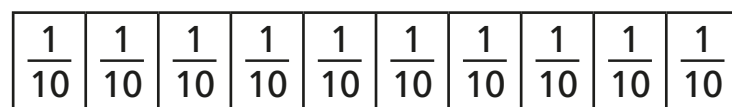
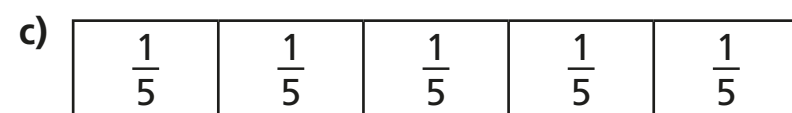
1 Shade the bar models to represent the equivalent fractions.



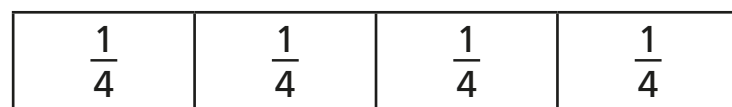
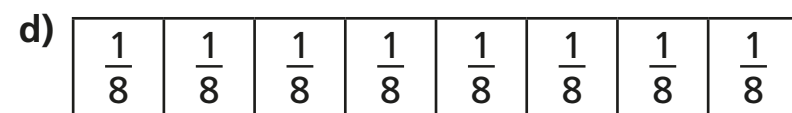
$$\frac{1}{2} = \frac{3}{6}$$



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

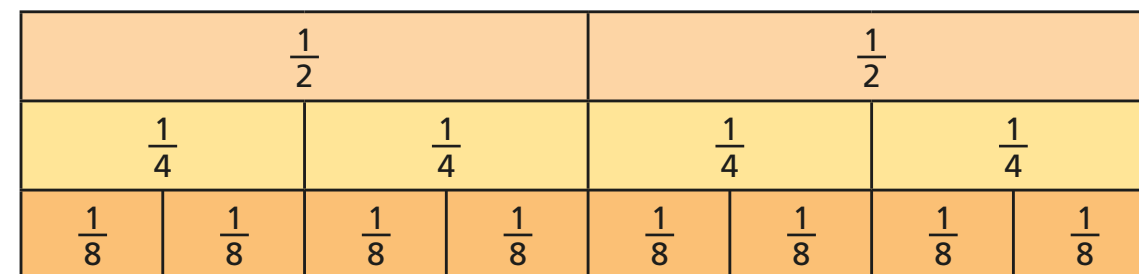


$$\frac{4}{5} = \frac{8}{10}$$



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

2 Use the fraction wall to complete the equivalent fractions.



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

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

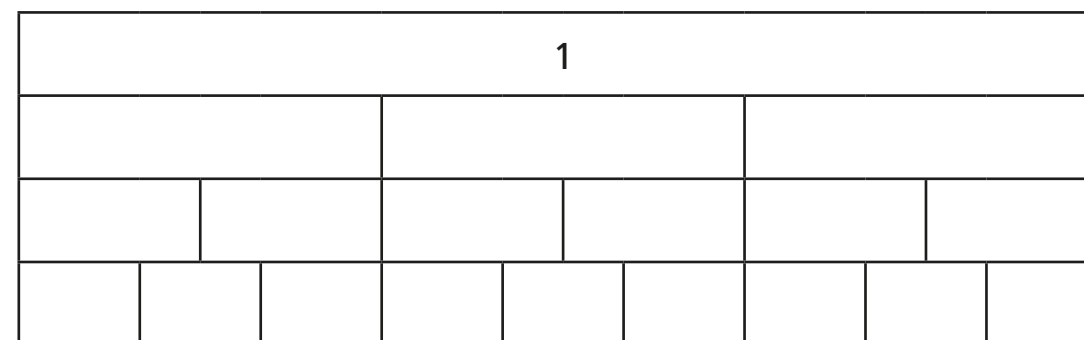
e) $\frac{\square}{8} = \frac{3}{4}$

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

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

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

3 a) Label the fractions on the fraction wall.



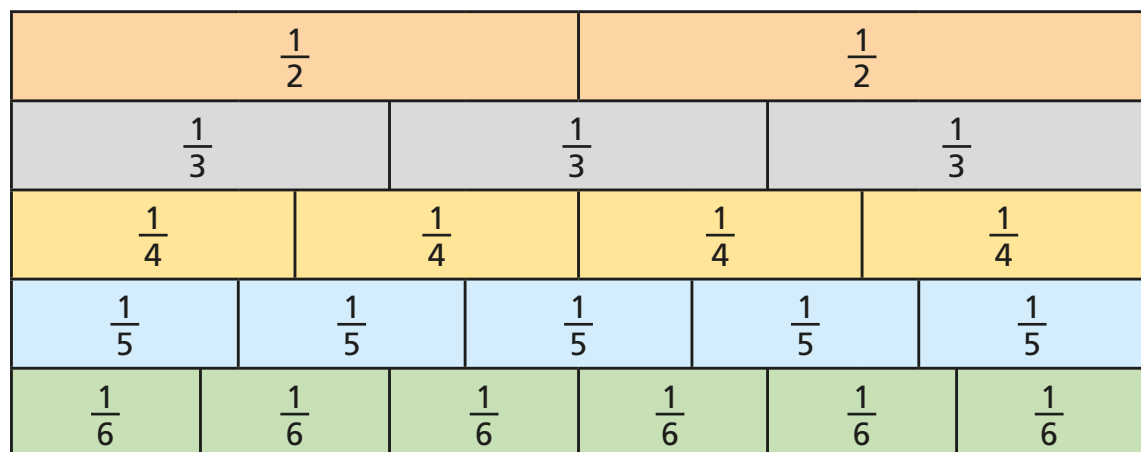
b) Use the fraction wall to complete the equivalent fractions.

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

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

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

4 Here is a fraction wall.



Is each statement true or false? Tick your answers.

- | | True | False |
|---|--------------------------|--------------------------|
| a) $\frac{1}{2}$ is equivalent to $\frac{3}{6}$ | ☐ | ☐ |
| b) $\frac{2}{3}$ is equivalent to $\frac{3}{4}$ | ☐ | ☐ |
| c) $\frac{2}{4}$ is equivalent to $\frac{3}{6}$ | ☐ | ☐ |
| d) $\frac{2}{3}$ is equivalent to $\frac{4}{5}$ | ☐ | ☐ |
| e) $\frac{2}{3}$ is equivalent to $\frac{4}{6}$ | ☐ | ☐ |
| f) $\frac{3}{5}$ is equivalent to $\frac{4}{6}$ | ☐ | ☐ |

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

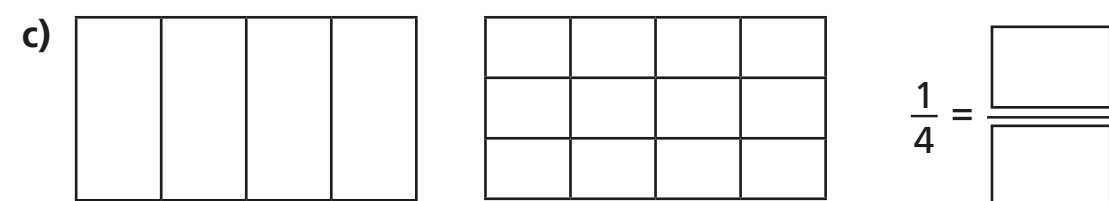
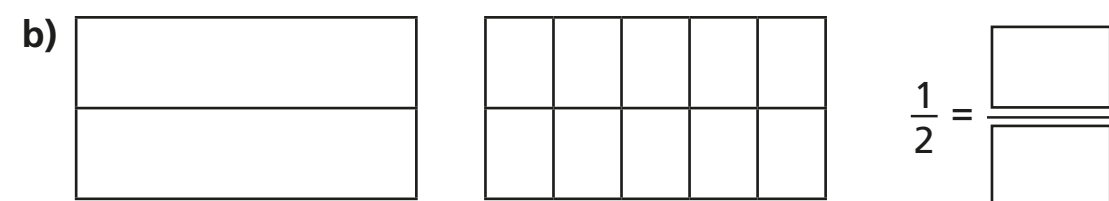
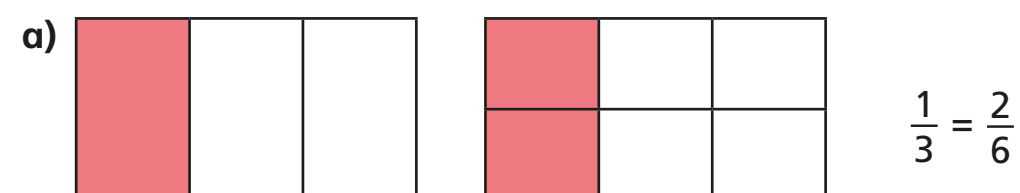


Equivalent fractions (2)



- 1 Shade the diagrams to help you complete the equivalent fractions.

The first one has been done for you.



- 2 Draw a diagram to show that $\frac{3}{4} = \frac{6}{8}$

- 3 Match the equivalent fractions.

$$\frac{1}{4}$$

$$\frac{4}{10}$$

$$\frac{10}{15}$$

$$\frac{1}{7}$$

$$\frac{3}{21}$$

$$\frac{2}{3}$$

$$\frac{2}{5}$$

$$\frac{3}{12}$$

- 4 Complete the equivalent fractions.

a) $\frac{1}{5} = \frac{\boxed{}}{10}$

d) $\frac{3}{10} = \frac{9}{\boxed{}}$

g) $\frac{8}{12} = \frac{2}{\boxed{}}$

b) $\frac{4}{5} = \frac{\boxed{}}{10}$

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

h) $\frac{2}{\boxed{}} = \frac{10}{25}$

c) $\frac{3}{10} = \frac{6}{\boxed{}}$

f) $\frac{8}{12} = \frac{\boxed{}}{3}$

i) $\frac{1}{\boxed{}} = \frac{4}{28}$



- 5 a) Write the fractions in the correct place on the sorting diagram.

$\frac{8}{24}$	$\frac{3}{12}$	$\frac{5}{15}$	$\frac{6}{24}$	$\frac{4}{12}$	$\frac{9}{36}$	$\frac{3}{9}$	$\frac{4}{16}$
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	equivalent to $\frac{1}{3}$	equivalent to $\frac{1}{4}$
odd denominator		
even denominator		

- b) Are any of the boxes empty?

Why do you think this is?

Talk about your answer with a partner.



- 6 Find three ways to make the fractions equivalent.

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

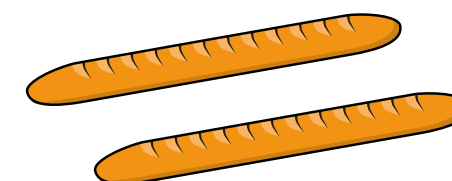
b) $\frac{1}{\square} = \frac{4}{\square}$ $\frac{1}{\square} = \frac{4}{\square}$ $\frac{1}{\square} = \frac{4}{\square}$

c) $\frac{\square}{3} = \frac{\square}{9}$ $\frac{\square}{3} = \frac{\square}{9}$ $\frac{\square}{3} = \frac{\square}{9}$

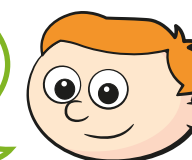
- 7 Eva and Ron have a baguette each.

The baguettes are the same size.

Eva cuts her baguette into 8 equal pieces.



3 of my equal pieces are equal to 6 of Eva's.



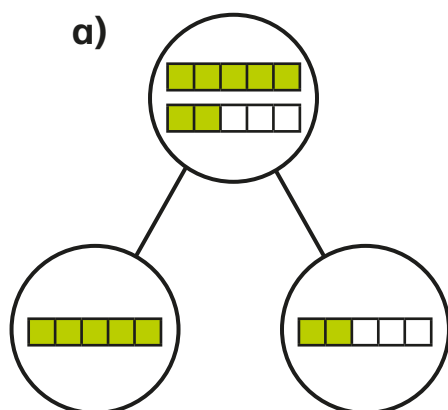
How many equal pieces has Ron cut his baguette into?

Ron has cut his baguette into equal pieces.



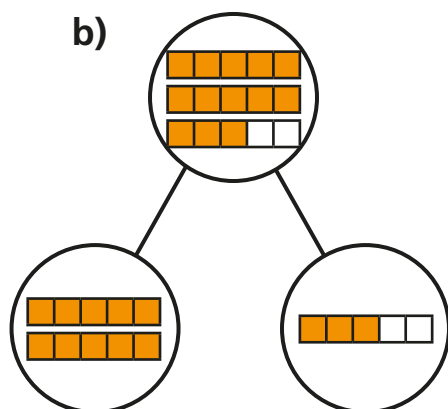
Fractions greater than 1

1 Complete the sentences.



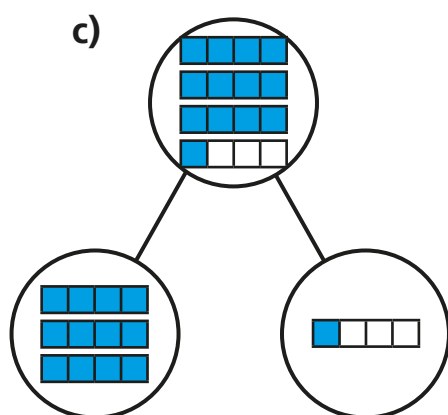
There are 7 fifths altogether.

7 fifths = whole + fifths



There are fifths altogether.

fifths = wholes +
 fifths



There are quarters altogether.

quarters = wholes +
 quarter

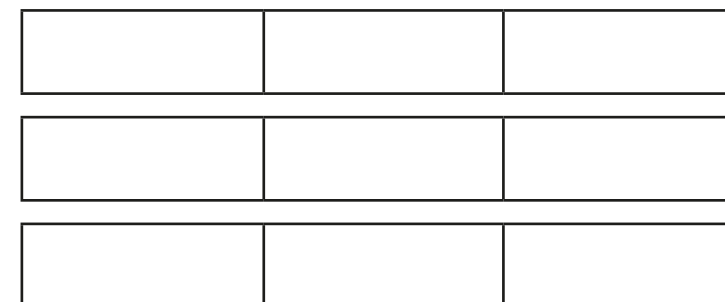
2 Shade the bar models to represent the fractions.

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



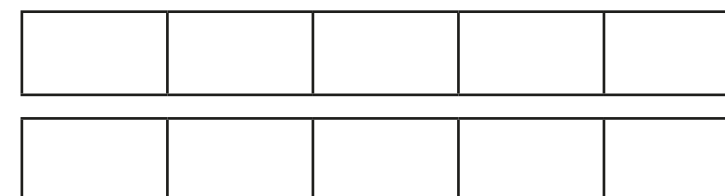
$\frac{5}{3} =$ whole + thirds =

b) $\frac{8}{3}$



$\frac{8}{3} =$ wholes + thirds =

c) $\frac{8}{5}$



$\frac{8}{5} =$ whole + fifths =



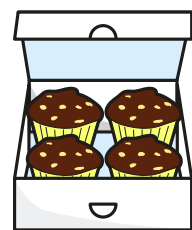
3 Complete the statements.

- a) $\frac{12}{2} = \square$ wholes e) $\frac{15}{3} = \square$ wholes
- b) $\frac{12}{4} = \square$ wholes f) $\frac{15}{5} = \square$ wholes
- c) $\frac{12}{6} = \square$ wholes g) $\frac{15}{4} = \square$ wholes + $\square$ quarters
- d) $\frac{12}{3} = \square$ wholes h) $\frac{15}{2} = \square$ wholes + $\square$ half

4 Whitney bakes 26 muffins.

Muffins are packed in boxes of 4

a) How many boxes can Whitney fill?



Whitney can fill $\square$ boxes.

b) How many more muffins does Whitney need to fill another box?

Whitney needs $\square$ muffins to fill another box.

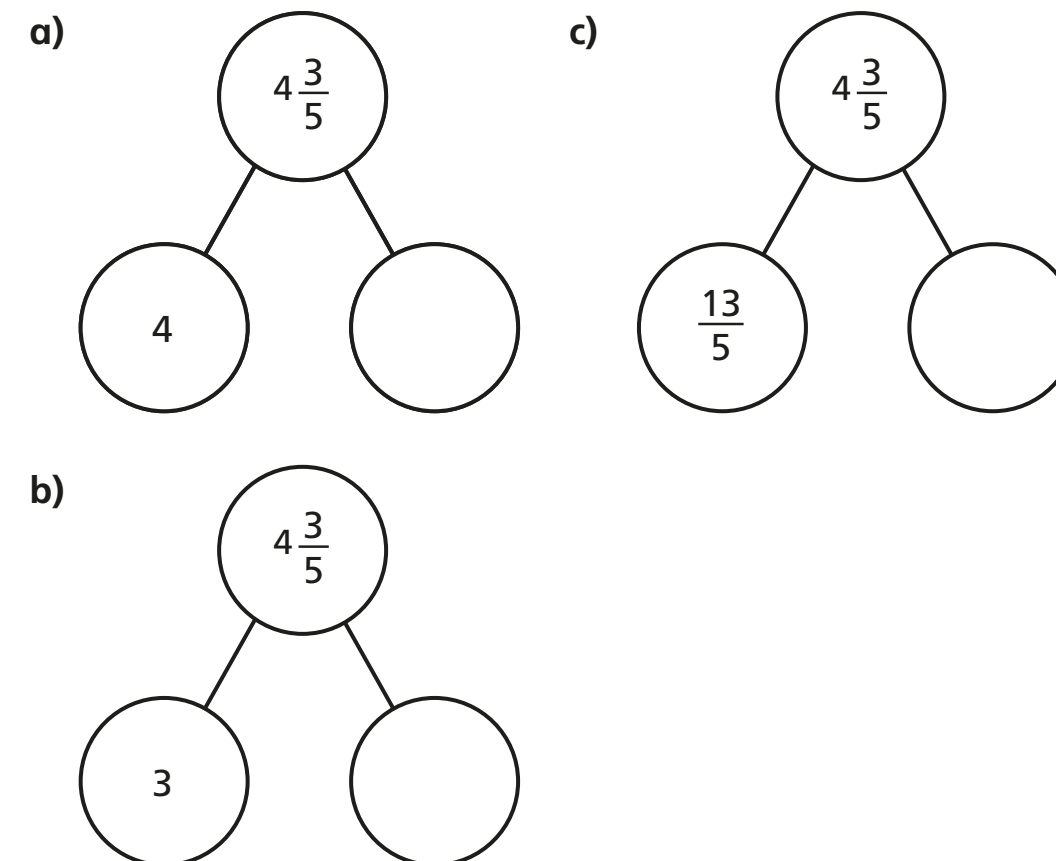
Explain how you know.

How does writing $\frac{26}{4}$ help you to answer this?

5 Write $<$, $>$ or $=$ to complete the statements.

- a) 2 wholes and 3 quarters $\bigcirc$ 5 quarters
- b) 2 wholes and 3 quarters $\bigcirc$ 15 quarters
- c) 2 wholes and 3 sixths $\bigcirc$ 15 sixths
- d) 2 wholes and 3 eighths $\bigcirc$ 15 eighths
- e) $\frac{15}{3} \bigcirc \frac{15}{5}$
- f) $\frac{15}{3} \bigcirc \frac{20}{4}$

6 Complete the part-whole models.

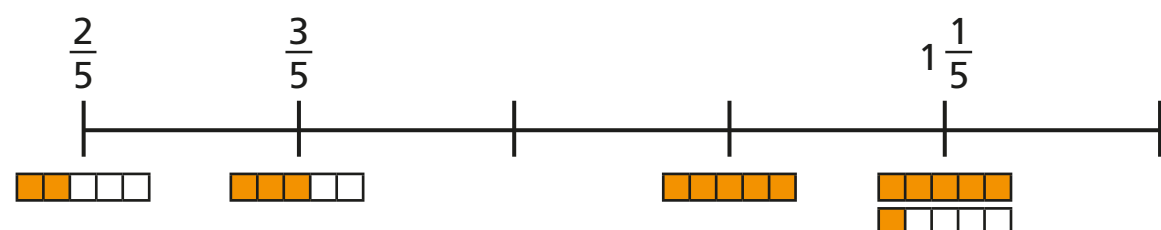


Count in fractions

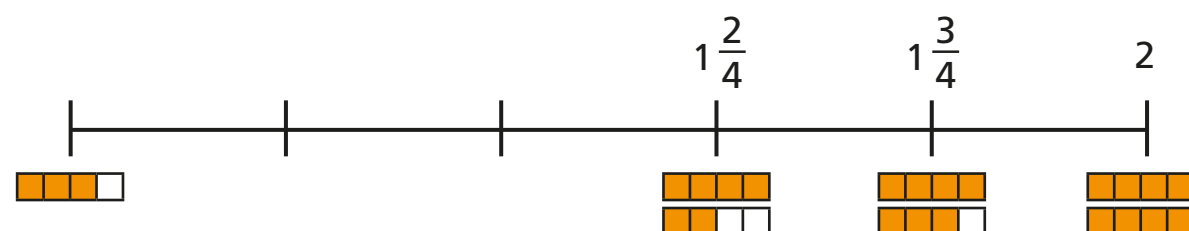


1 Complete the number lines.

a)

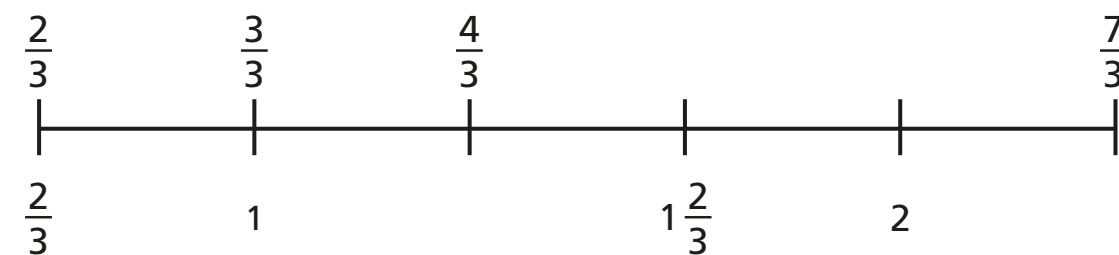


b)

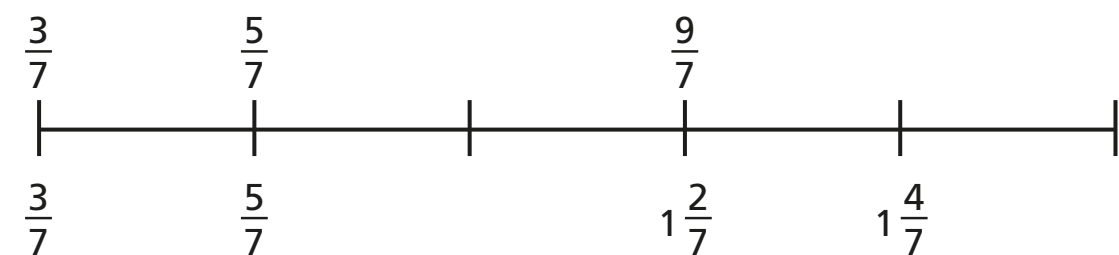


2 Complete the number lines.

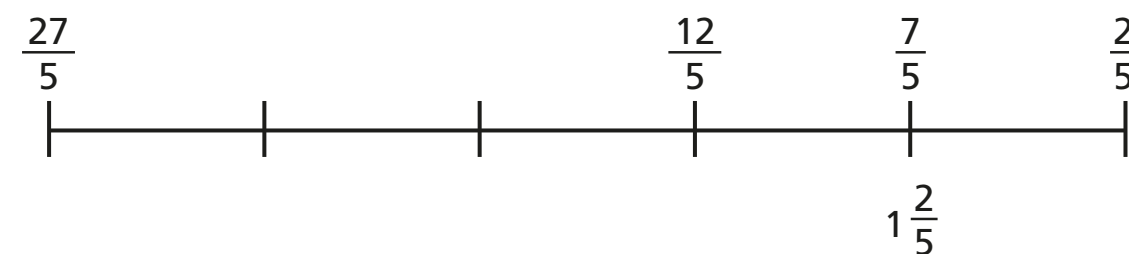
a)



b)



c)



3 Write the next three fractions in each sequence.

a) $\frac{1}{8}, \frac{2}{8}, \frac{3}{8},$, ,

b) $\frac{1}{4}, \frac{2}{4}, \frac{3}{4},$, ,

c) $\frac{1}{4}, \frac{3}{4}, 1\frac{1}{4},$, ,

d) $4, 3\frac{1}{3}, 2\frac{2}{3},$, ,

4 What is the missing fraction?

Give two possible answers.

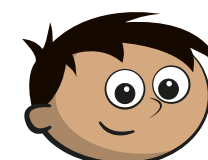
a) $\frac{8}{3}, \frac{12}{3}, \frac{16}{3}, \frac{20}{3},$, $\frac{28}{3}, \frac{32}{3}$

b) $\frac{8}{5}, \frac{12}{5}, \frac{16}{5}, \frac{20}{5},$, $\frac{28}{5}, \frac{32}{5}$

c) $\frac{8}{7}, \frac{12}{7}, \frac{16}{7}, \frac{20}{7},$, $\frac{28}{7}, \frac{32}{7}$

5 Amir, Dexter and Dora are counting in fractions.

$$\frac{8}{10}, \frac{9}{10}, \frac{10}{10}, \frac{11}{10}$$



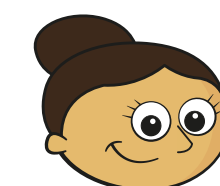
Amir

The next fraction
is $\frac{12}{10}$

The next fraction
is $1\frac{2}{10}$



Dexter



Dora

The next fraction
is $1\frac{1}{5}$

a) Who is correct? _____

Explain your answer.

b) Compare answers with a partner.

