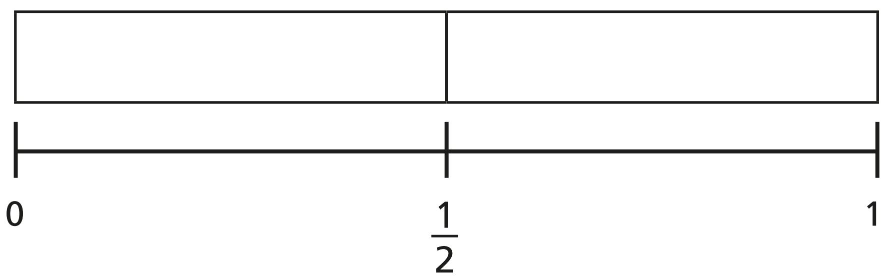
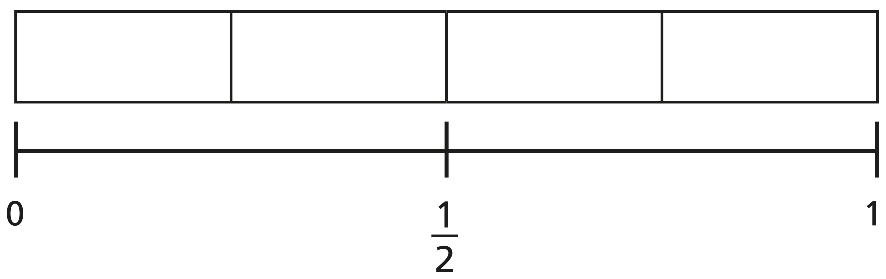
Equivalent fractions (2)

1 Shade the bar models to represent the fractions.

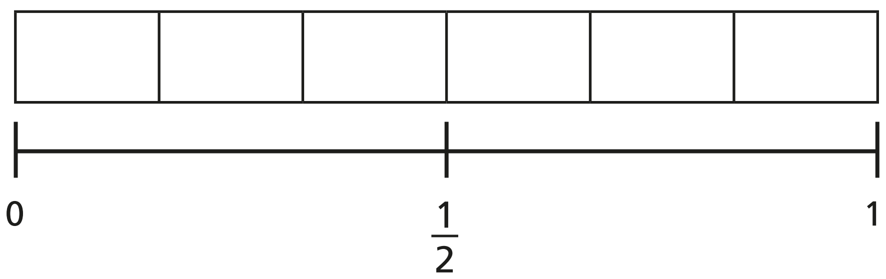
a) Shade $\frac{1}{2}$ of the bar model.



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



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

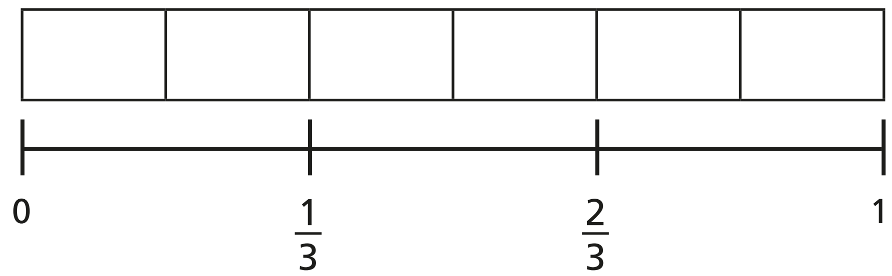


d) What do you notice?

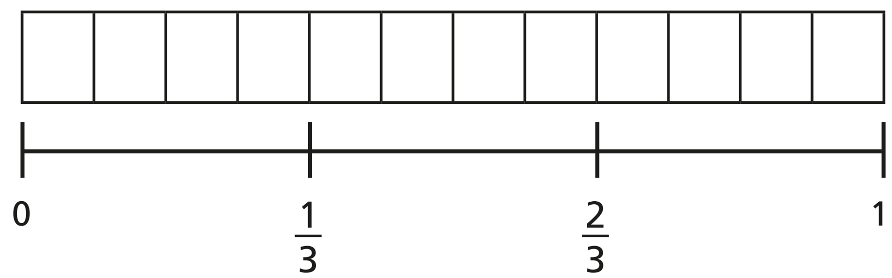
e) Write another fraction that is equivalent to $\frac{1}{2}$ $\square$

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

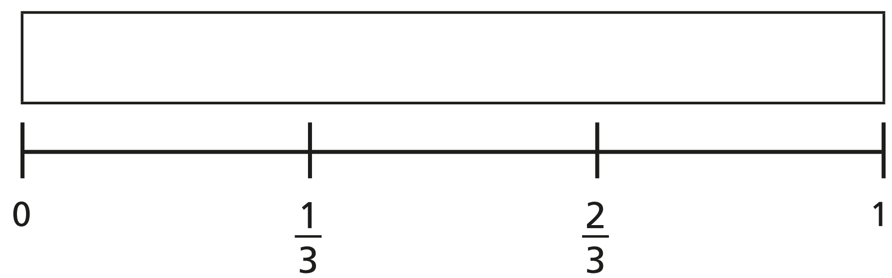
a)



b)



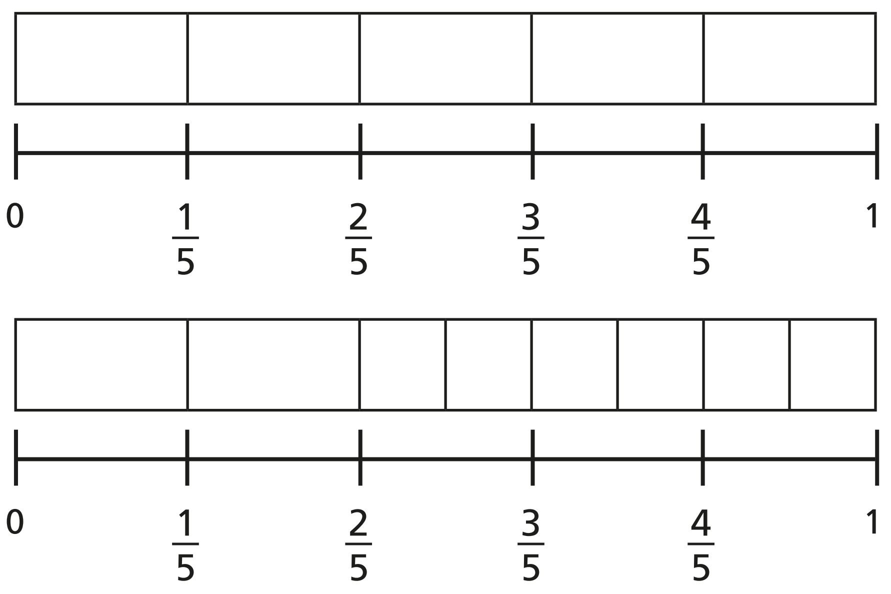
c)

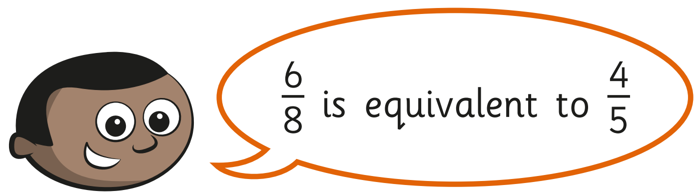


d) Use your answers to parts a), b) and c) to complete the equivalent fractions.

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

3 Mo is finding equivalent fractions.



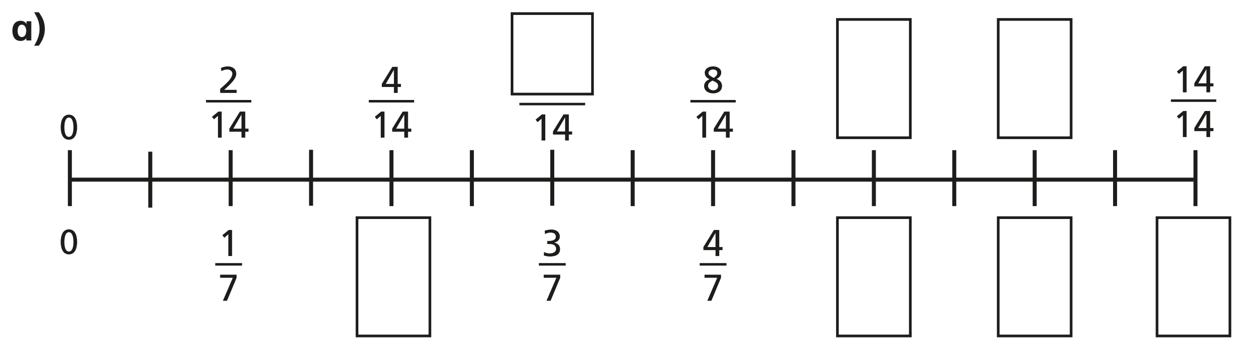


Do you agree with Mo? ________

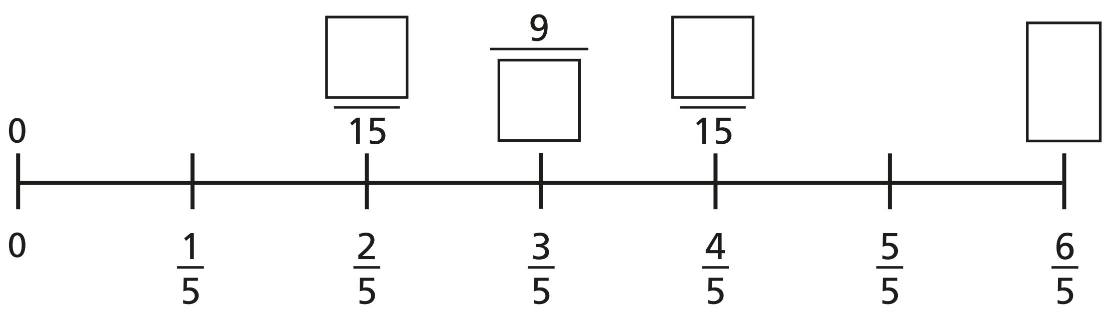
Explain your answer.

4 Find the missing numbers.

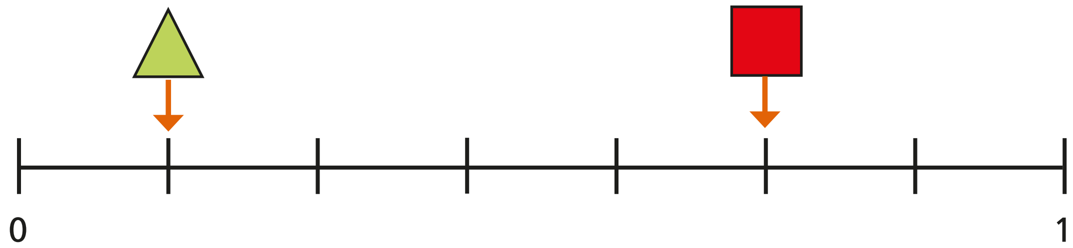
a)



b)



5 Here is a number line.

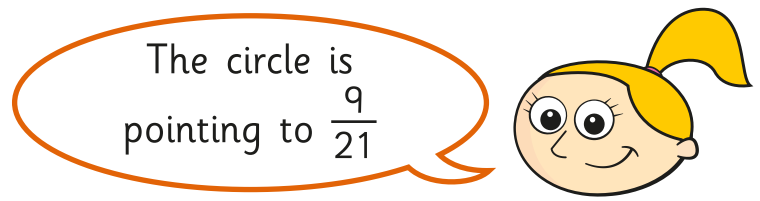


a) What fraction is each shape pointing to?

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

Draw the circle on the number line.

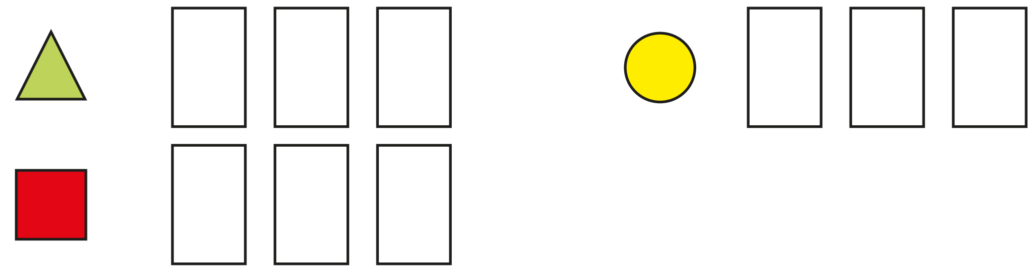
c)



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.

a)

$\frac{1}{2}$	$\frac{1}{2}$

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

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

b)

$\frac{1}{2}$	$\frac{1}{2}$

$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

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

c)

$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

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

d)

$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

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

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

2 Use the fraction wall to complete the equivalent fractions.

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

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

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

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

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

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

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

3 **a)** Label the fractions on the fraction wall.

1											

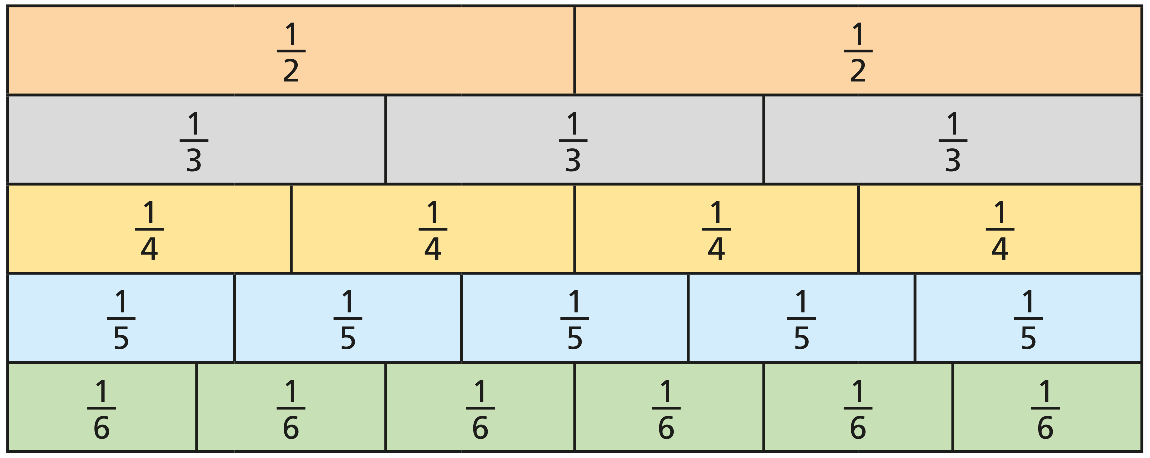
b) Use the fraction wall to complete the equivalent fractions.

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

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

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

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**

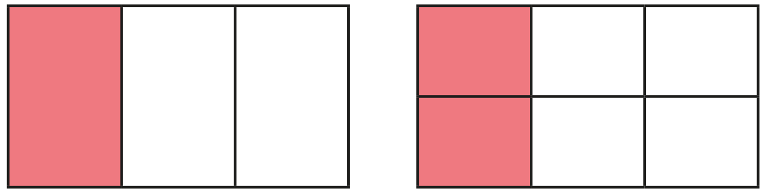
c) If a fraction is equivalent to one half, the denominator will be double the numerator.

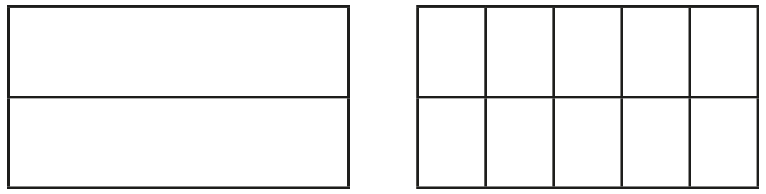
always **sometimes** **never**

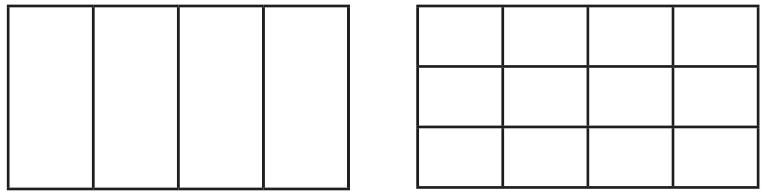
Equivalent fractions (2)

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

The first one has been done for you.

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

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

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

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

3. Match the equivalent fractions.

$\frac{1}{4}$	$\frac{3}{21}$
$\frac{4}{10}$	$\frac{2}{3}$
$\frac{10}{15}$	$\frac{2}{5}$
$\frac{1}{7}$	$\frac{3}{12}$

4. Complete the equivalent fractions.

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

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

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

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

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

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

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

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

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

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

$\frac{8}{24}$ $\frac{3}{12}$ $\frac{5}{15}$ $\frac{6}{24}$ $\frac{4}{12}$ $\frac{9}{36}$ $\frac{3}{9}$ $\frac{4}{16}$

	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.

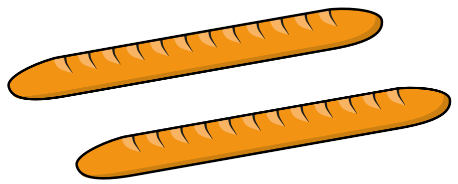
6 Find three ways to make the fractions equivalent.

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

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

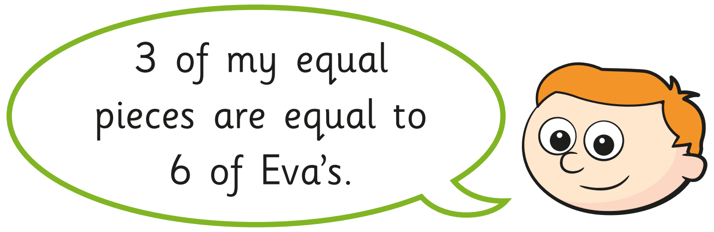
c) $\frac{\square}{3} = \frac{\square}{9}$ $\frac{\square}{3} = \frac{\square}{9}$ $\frac{\square}{3} = \frac{\square}{9}$

7 Eva and Ron have a baguette each.



The baguettes are the same size.

Eva cuts her baguette into 8 equal pieces.

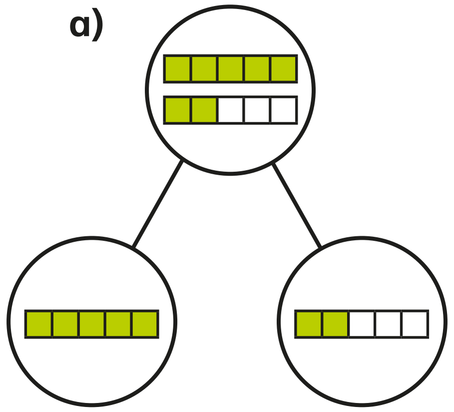


How many equal pieces has Ron cut his baguette into?

Ron has cut his baguette into $\square$ equal pieces.

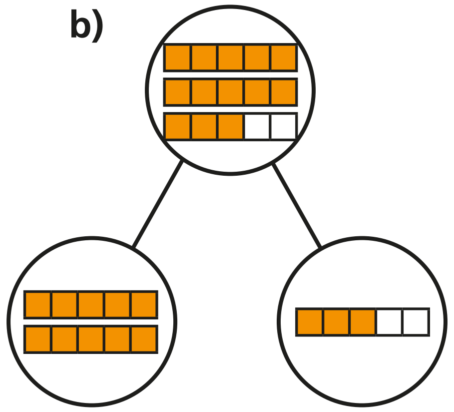
Fractions greater than 1

1. Complete the sentences.

a) 

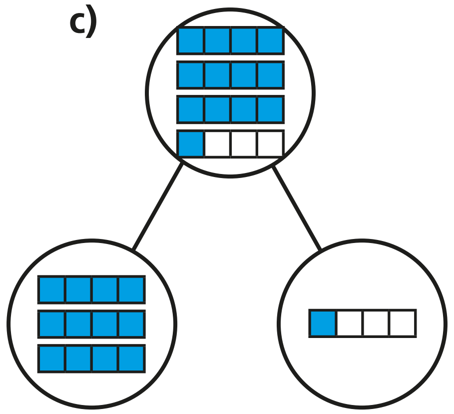
There are 7 fifths altogether.

7 fifths = ☐ whole + ☐ fifths

b) 

There are ☐ fifths altogether.

☐ fifths = ☐ wholes + ☐ fifths

c) 

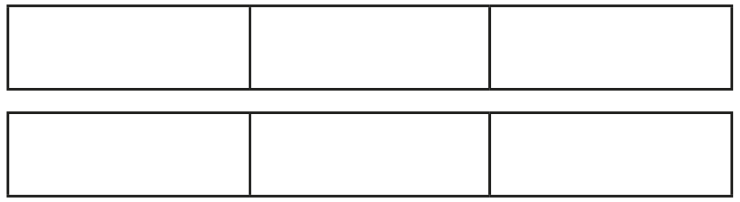
There are ☐ quarters altogether.

☐ quarters = ☐ wholes + ☐ quarter

2. Shade the bar models to represent the fractions.

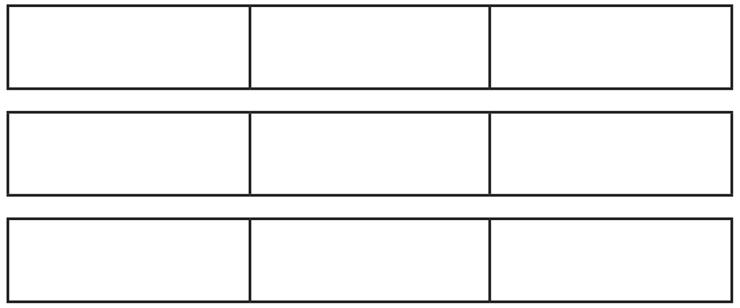
Complete the number sentences.

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



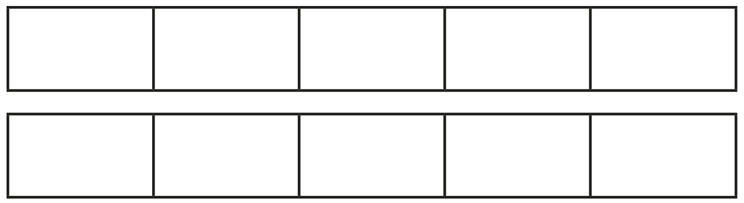
$\frac{5}{3}$ = ☐ whole + ☐ thirds = ☐

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

b) $\frac{12}{4} = \square$ wholes

c) $\frac{12}{6} = \square$ wholes

d) $\frac{12}{3} = \square$ wholes

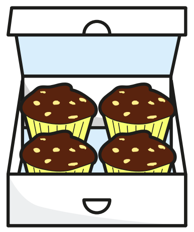
e) $\frac{15}{3} = \square$ wholes

f) $\frac{15}{5} = \square$ wholes

g) $\frac{15}{4} = \square$ wholes + $\square$ quarters

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

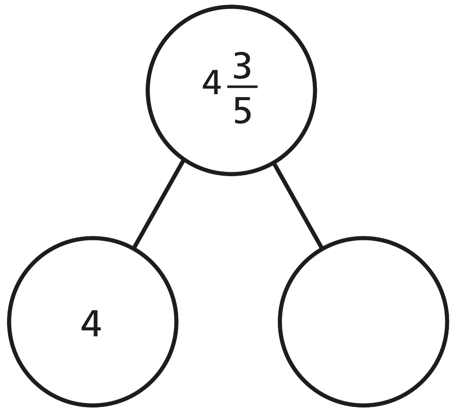
d) 2 wholes and 3 eighths $\bigcirc$ 15 eighths

e) $\frac{15}{3} \bigcirc \frac{15}{5}$

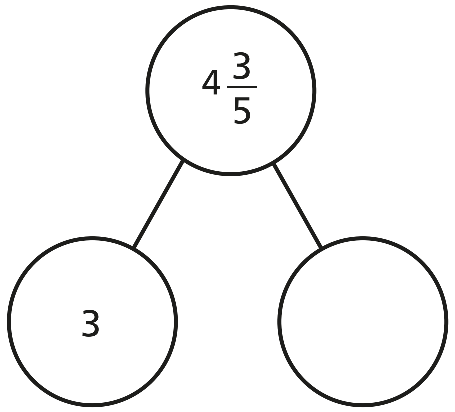
f) $\frac{15}{3} \bigcirc \frac{20}{4}$

6 Complete the part-whole models.

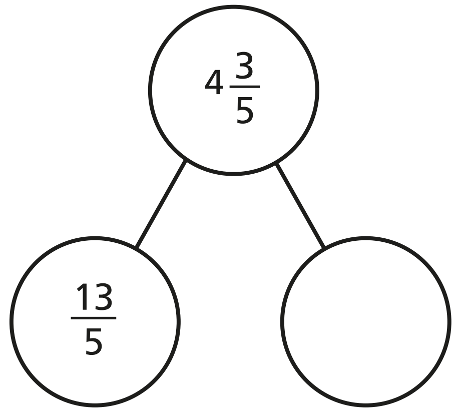
a)



b)



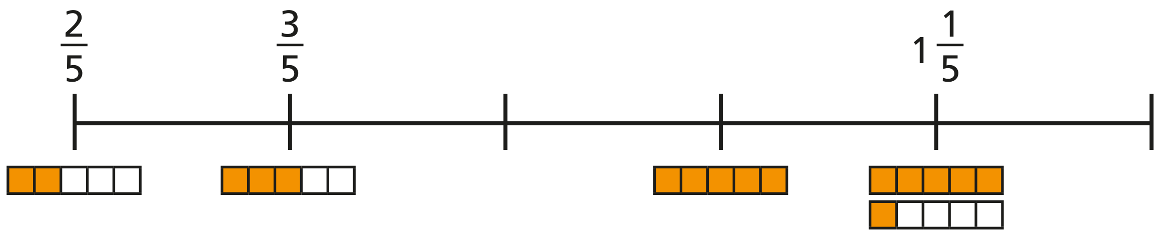
c)



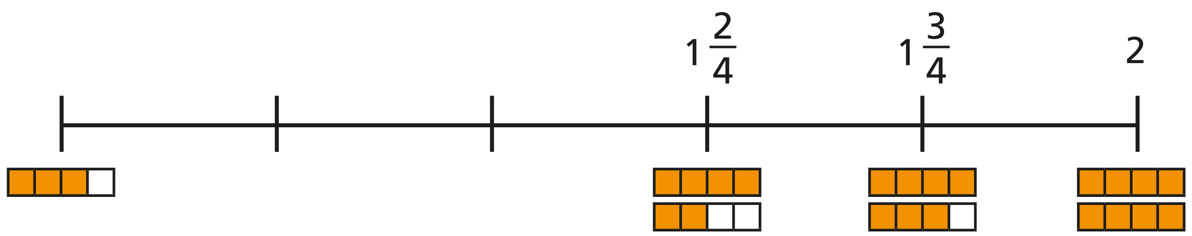
Count in fractions

1 Complete the number lines.

a)

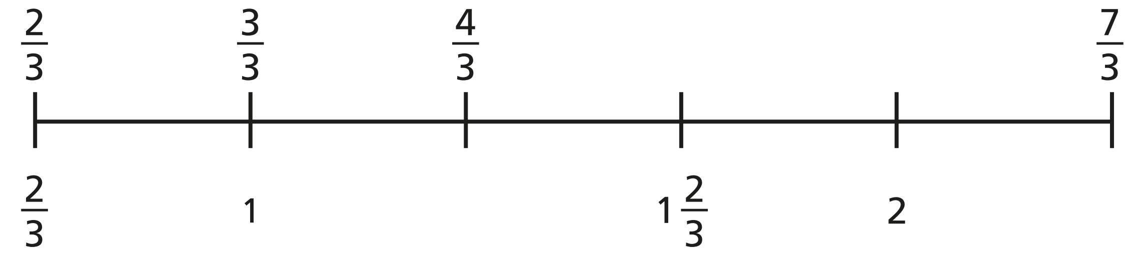


b)

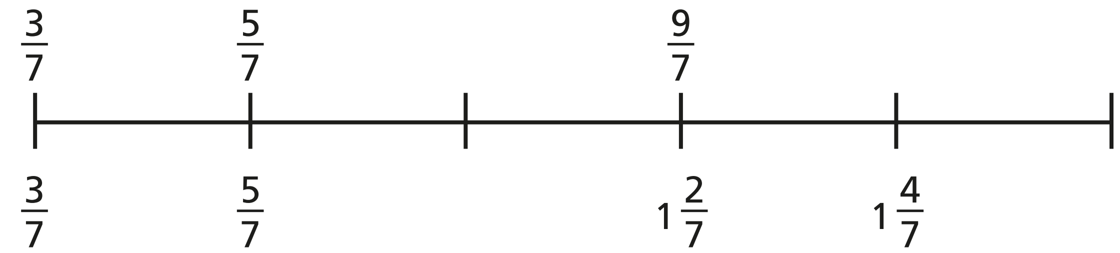


2 Complete the number lines.

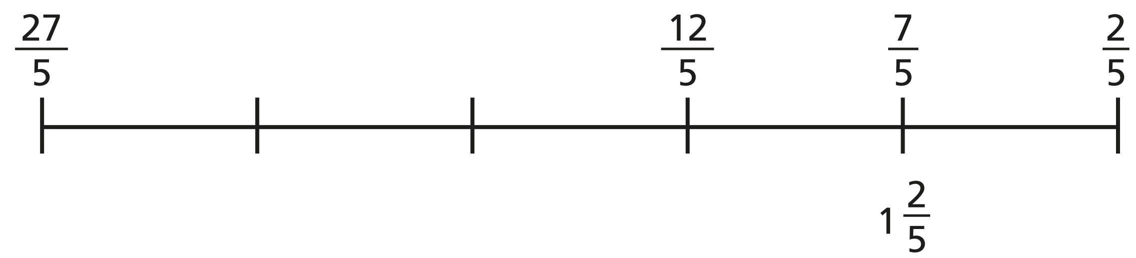
a)



b)



c)



3 Write the next three fractions in each sequence.

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

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

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

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

4 What is the missing fraction?

Give two possible answers.

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

$\square$ $\square$

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

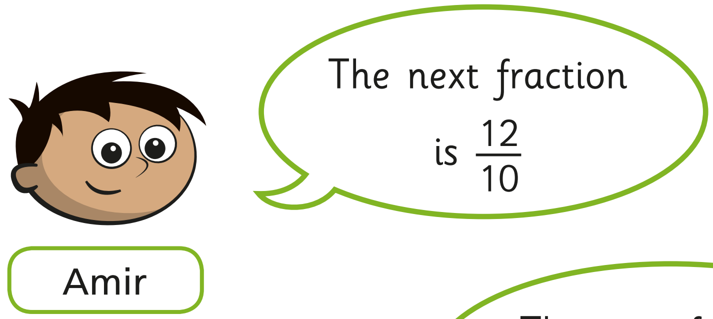
$\square$ $\square$

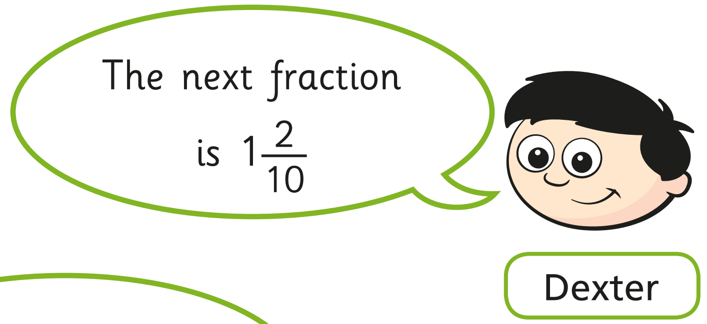
c) $\frac{8}{7}$, $\frac{12}{7}$, $\frac{16}{7}$, $\frac{20}{7}$, $\square$, $\frac{28}{7}$, $\frac{32}{7}$

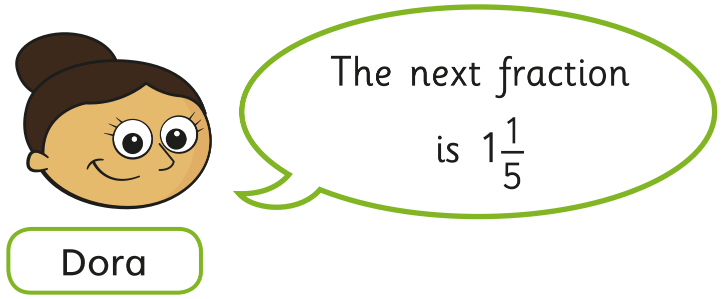
$\square$ $\square$

5 Amir, Dexter and Dora are counting in fractions.

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







a) Who is correct? ____________________

Explain your answer.

____

____

____

b) Compare answers with a partner.