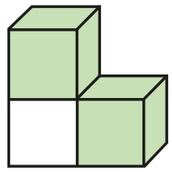
Non-unit fractions

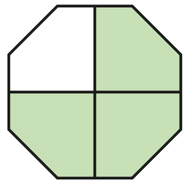
1 Complete the sentences.

a) 

There are 3 equal parts.

There are 2 parts shaded.

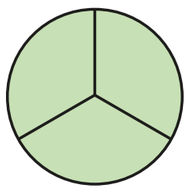
$\frac{2}{3}$ is shaded.

b) 

There are 4 equal parts.

There are 3 parts shaded.

$\frac{3}{4}$ is shaded.

c) 

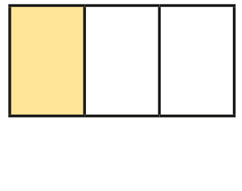
There are 3 equal parts.

There are 3 parts shaded.

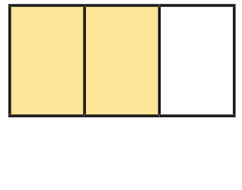
$\frac{3}{3}$ is shaded.

2 What fraction of each shape is shaded?

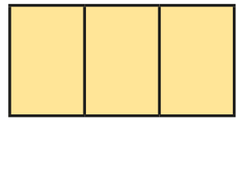
a)



$\frac{1}{3}$



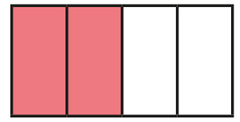
$\frac{2}{3}$



$\frac{3}{3}$

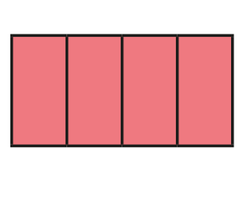
b)

$\frac{1}{4}$



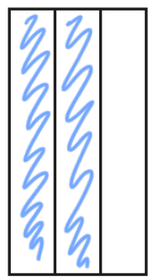
$\frac{2}{4}$

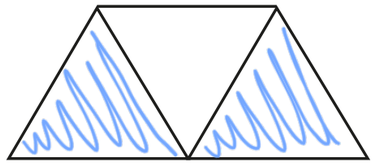
$\frac{3}{4}$



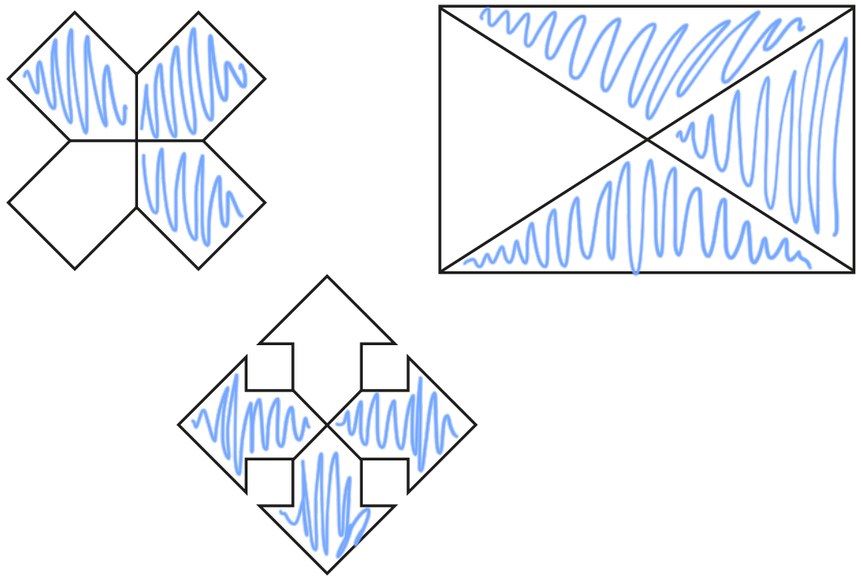
$\frac{4}{4}$

3 Colour $\frac{2}{3}$ of each shape.





4 Colour $\frac{3}{4}$ of each shape.



5 A shape has 3 equal parts.

a) What fraction is shaded if there are 2 parts shaded?

$\frac{2}{3}$ is shaded.

b) What fraction is shaded if there are 3 parts shaded?

$\frac{3}{3}$ is shaded.

6 Write the fractions in the table.

$\frac{1}{3}$ $\frac{3}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{2}{3}$

Unit fractions	Non-unit fractions
$\frac{1}{3}$ $\frac{1}{2}$ $\frac{1}{4}$	$\frac{3}{4}$ $\frac{2}{3}$

7 Fill in the boxes to give a unit fraction and a non-unit fraction.

unit fraction $\frac{\boxed{1}}{5}$ **non-unit fraction** $\frac{\boxed{2}}{5}$

Work with a partner.

Find other examples of unit fractions and non-unit fractions.

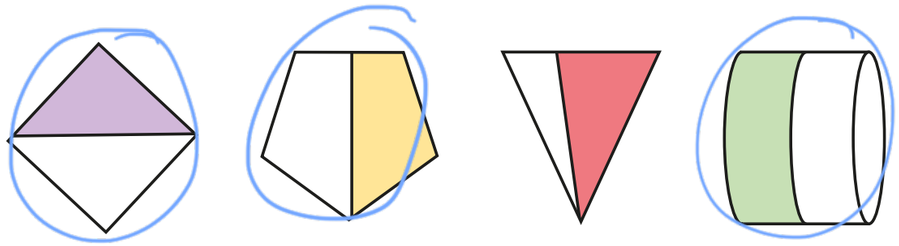
Write five examples of each.

unit fractions: e.g. $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{6}$ $\frac{1}{7}$

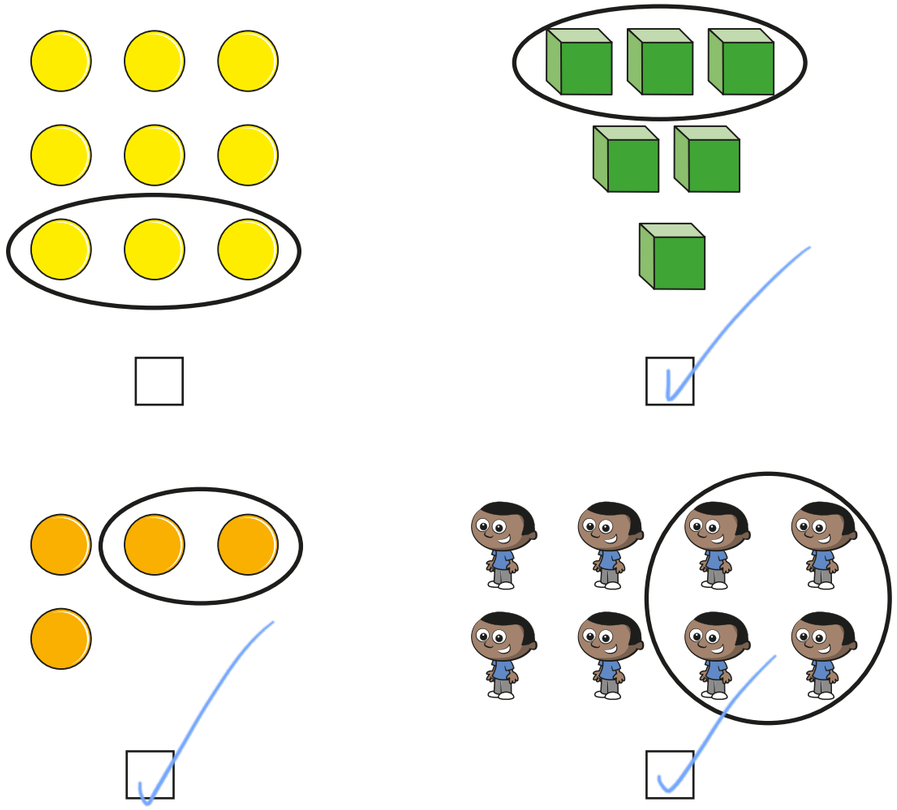
non-unit fractions: $\frac{2}{7}$ $\frac{3}{11}$ $\frac{4}{100}$ $\frac{5}{17}$ $\frac{6}{99}$

Equivalence of $\frac{1}{2}$ and $\frac{2}{4}$

1 Circle the shapes that have $\frac{1}{2}$ shaded.

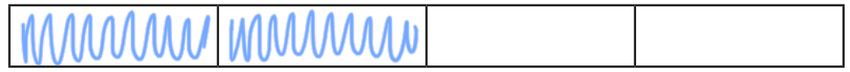


2 Tick the groups that have $\frac{1}{2}$ circled.



3 Here are two bar models.

a) Colour $\frac{2}{4}$ of the bar model.



b) Colour $\frac{1}{2}$ of the bar model.

What do you notice? Talk to a partner.

4 Use the sweets to help you answer the questions.

a) What is $\frac{1}{2}$ of 12?

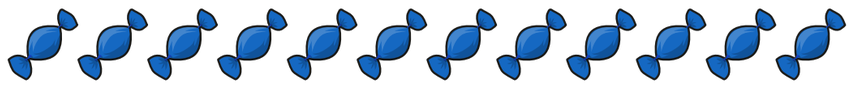
6

b) What is $\frac{1}{4}$ of 12?

3

c) What is $\frac{2}{4}$ of 12?

6



5 Write the missing numbers.

$\frac{3}{4}$ of 20 = 15

$\frac{1}{2}$ of 20 = 10

20

$\frac{2}{4}$ of 20 = 10

$\frac{1}{4}$ of 20 = 5

6 Solve the problems.

a) Find $\frac{2}{4}$ of £8

£ 4

b) Find $\frac{2}{4}$ of 24 kg

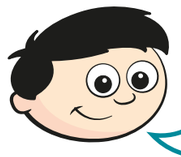
12 kg

How did you work out the answers?

7 Write the missing number.

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

8

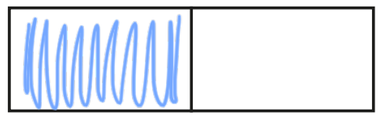


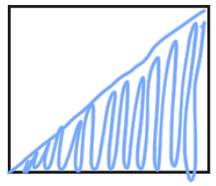
You cannot find $\frac{2}{4}$ of this shape as you cannot divide it into 4 equal parts.

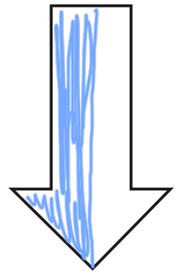
a) Do you agree with Dexter? No

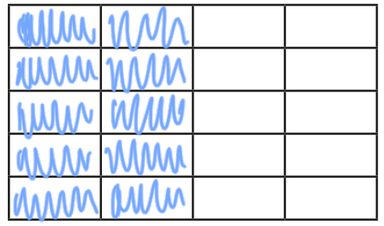
Talk about it with a partner.

b) Colour $\frac{2}{4}$ of each shape.





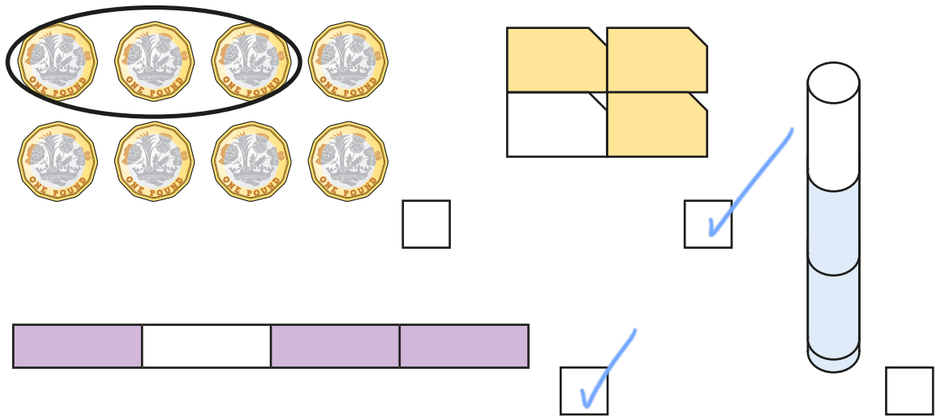




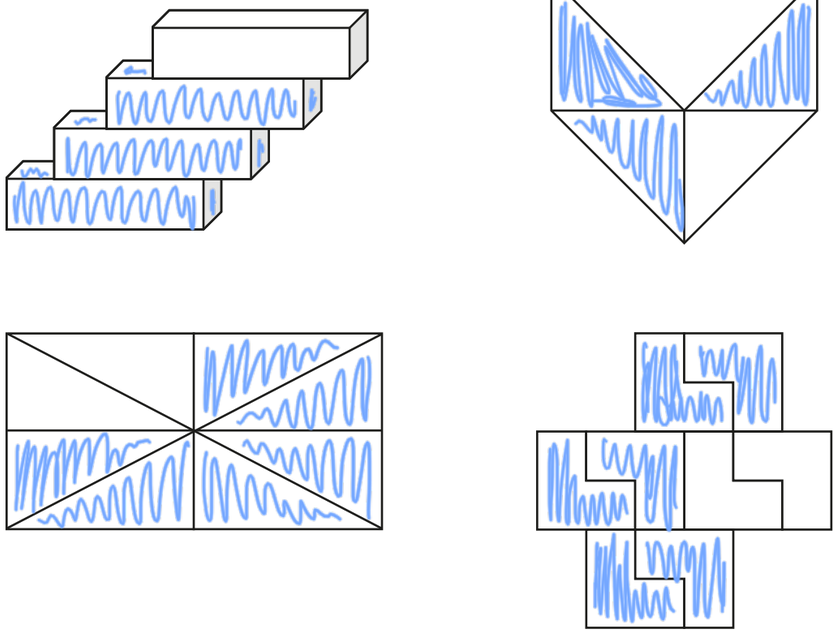
Talk to a partner about how you did it.

Find three quarters

1 Tick the representations that show $\frac{3}{4}$

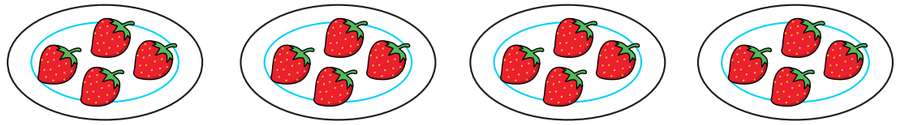


2 Colour $\frac{3}{4}$ of each shape.



3 Rosie is sharing out 16 strawberries.

She shares them into 4 equal groups.



a) What is $\frac{1}{4}$ of the strawberries?

$\frac{1}{4}$ of 16 = 4

b) What is $\frac{2}{4}$ of the strawberries?

$\frac{2}{4}$ of 16 = 8

c) What is $\frac{3}{4}$ of the strawberries?

$\frac{3}{4}$ of 16 = 12

d) What is $\frac{4}{4}$ of the strawberries?

$\frac{4}{4}$ of 16 = 16

4 Work out $\frac{3}{4}$ of £20

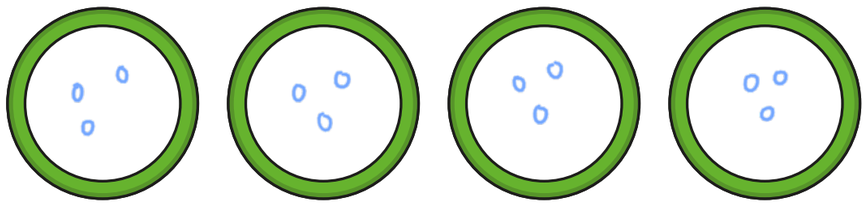
£ 15

5 Year 2 are planting sunflower seeds.

Annie has 4 pots and 12 seeds.

She plants the same number of seeds in each pot.

a) Draw the seeds she puts in each pot.



b) Complete the number sentences.

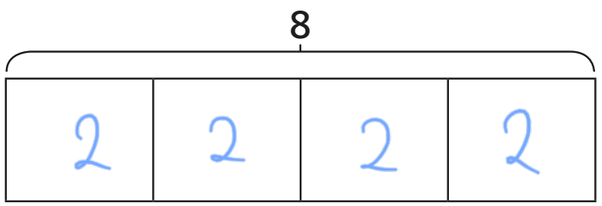
$\frac{1}{4}$ of 12 = 3

$\frac{3}{4}$ of 12 = 9

6 The bar model is split into 4 equal parts.

a) What is the value of each part?

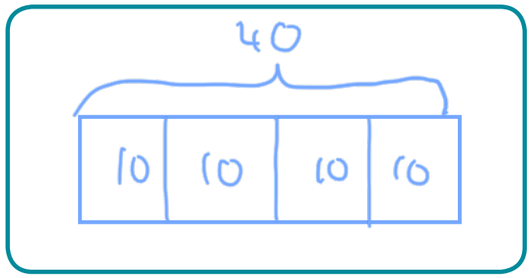
Label it on the bar model.



b) Use the bar model to find $\frac{3}{4}$ of 8

6

7 Draw a bar model to find $\frac{3}{4}$ of 40



$\frac{3}{4}$ of 40 = 30

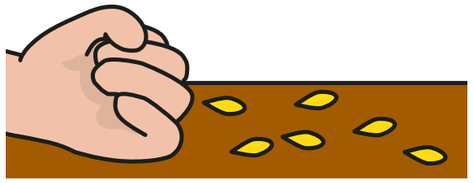
8 Write <, > or = to compare the statements.

a) $\frac{1}{4}$ of 4 < $\frac{3}{4}$ of 4

b) $\frac{1}{2}$ of 20 < $\frac{3}{4}$ of 20

9 Scott has some seeds.

He puts $\frac{3}{4}$ of the seeds into his hand.



He puts the rest of the seeds on the table.

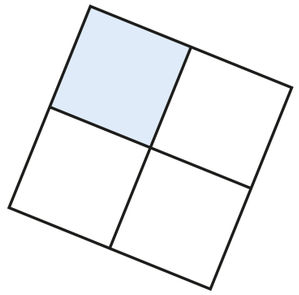
How many seeds does Scott have in his hand?

Use a bar model to help you.

18

Count in fractions

1 Dani colours part of this shape.



a) What fraction of the shape has Dani coloured?

$\frac{1}{4}$

b) Colour another small square.

What fraction of the shape is now coloured?

$\frac{2}{4}$

c) Colour another small square.

What fraction of the shape is now coloured?

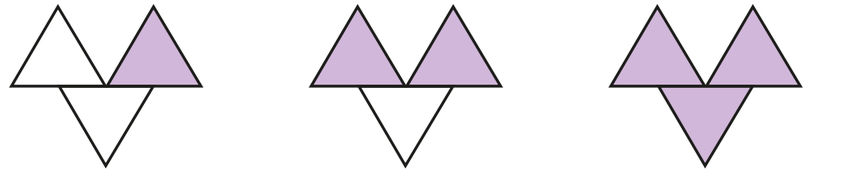
$\frac{3}{4}$

d) Colour another small square.

What fraction of the shape is now coloured?

$\frac{4}{4}$

2 What fraction of each shape is shaded?



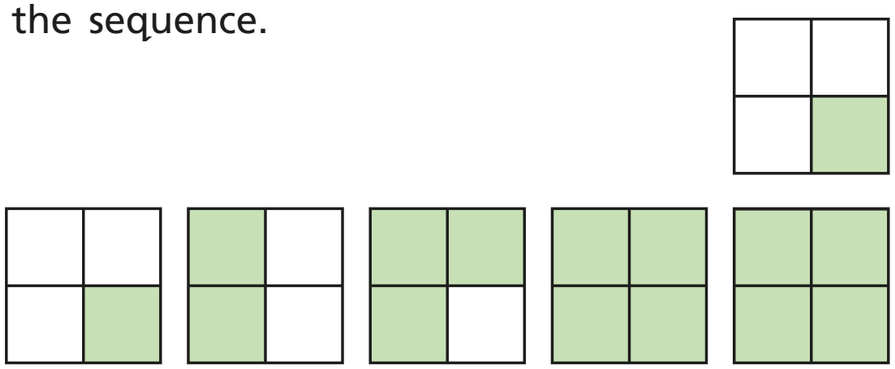
$\frac{1}{3}$ $\frac{2}{3}$ $\frac{3}{3}$

Say the fractions out loud to a partner.

3 Huan is colouring squares to make a sequence.

What fraction of each diagram is coloured?

Count the fractions out loud and continue the sequence.



$\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{5}{4}$

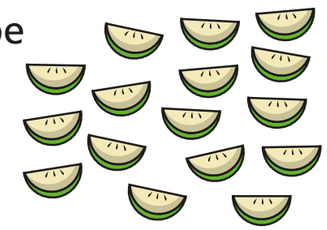
4 Aisha is counting pieces of fruit.

How many strawberries are there altogether?

There are [$4\frac{1}{2}$] strawberries.

5 The children in the class would like a whole apple each.

How many whole apples can be made from these quarters?



[4] whole apples can be made.

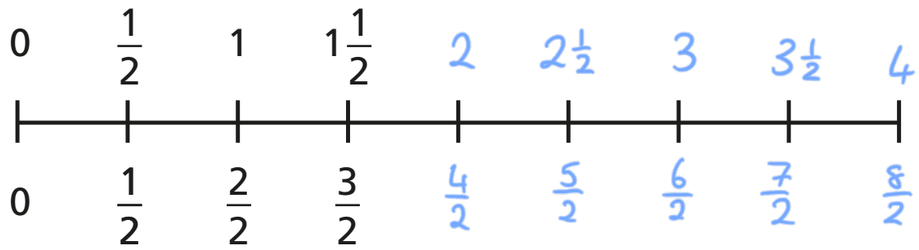
6 Write the missing fractions.

a)

5	$5\frac{1}{4}$	$5\frac{2}{4}$	$5\frac{3}{4}$	6	$6\frac{1}{4}$	$6\frac{2}{4}$

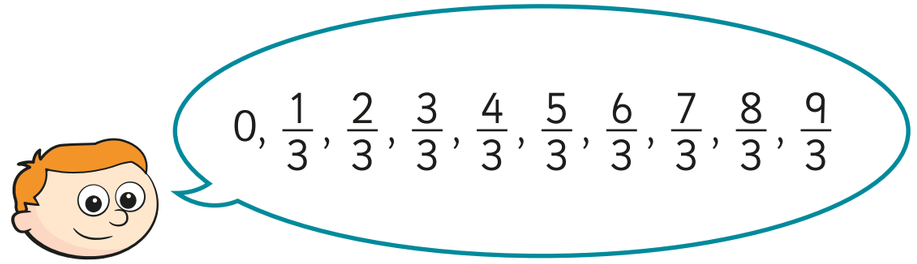
b)

7 Complete the number line.



What is the same? What is different?

8 Ron is counting to 3 in thirds.



Is Ron correct? [Yes]

Use the number line to show how you know this.