Schofield&Sims

Fractions 1 Answers

one-quarter

$\dfrac{1}{2}$

half

whole

$\dfrac{1}{2}$

half

three-quarters

one-quarter

$\dfrac{1}{4}$

whole

$\dfrac{1}{2}$

Name

Understand the words 'half' and 'whole'

Key point

The word '**half**' is used when something is split into **two equal parts**.
One of these parts is a **half**. A half is a fraction.
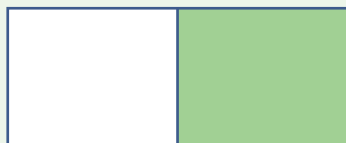
Half of this shape is green.
Two halves make **one whole**.

Get started

1 Tick the glass that is half full.

✓

2 Colour half the butterfly.

3 Copy the word.

half ___*half*___

4 Yes or no? This shows a whole pizza.
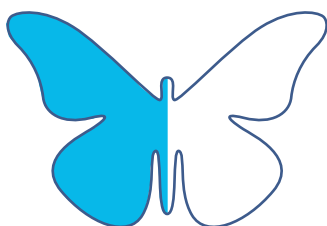
Yes ☐   No ✓

5 Yes or no? This shows a piece of paper folded in half.

Yes ☐   No ✓
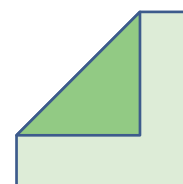
6 Colour the whole heart.

Now try these

7 How many is half of this set of chocolates? __2__

8 How many apples are whole? __2__

9 How many halves make one whole? __2__ halves

10 Tick the circle where half is green.

☐   ✓   ☐
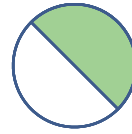
11 Tick the box that is half empty.

✓   ☐
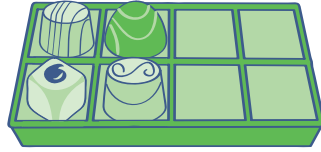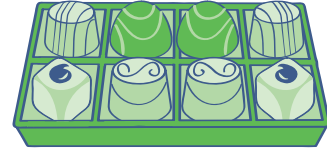
12 How many chocolates are in the half-empty box? ___4___

Challenge

13 Draw the other half of this boy.

14 Circle the longer amount of time.

(half an hour)   half a minute

15 Draw a line to cut this piece of toast into two halves.
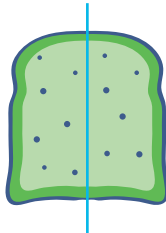
16 How many days are there in a whole week? ___7___

17 Tick the dog that has made half a turn.

☐   ✓
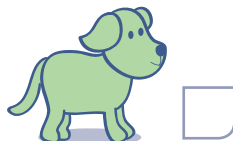
18 Tick the time shown on this clock.
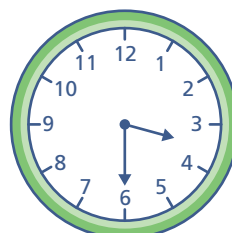
6 o'clock ☐

half past 3 ✓

half past 10 ☐

Begin to use the notation '$\frac{1}{2}$'

Key point

The word '**half**' is used when something is split into **two equal parts**.
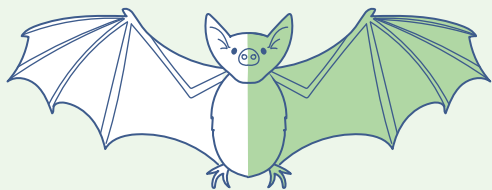
1 of the **2** equal parts is called a **half**.

It is written like this: $\frac{1}{2}$

Get started

1 Colour $\frac{1}{2}$ of the insect.
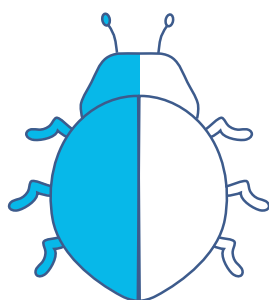
2 Complete the fraction to show one-half. $\frac{1}{2}$

3 Yes or no?
This shows $\frac{1}{2}$ of a pie.

Yes ✓   No ☐
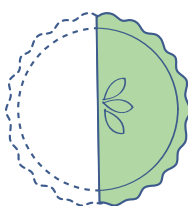
4 Circle the fraction that is 'one out of two equal parts'.

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

5 Yes or no? Two halves make one whole.

Yes ✓   No ☐

6 Tick the picture that shows $\frac{1}{2}$ a lime.

☐   ☐   ✓

Now try these

7 Colour $\frac{1}{2}$ of the petals.
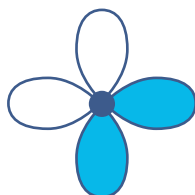
8 This is a whole face.   Draw $\frac{1}{2}$ a face.

9 Put a cross on the line to show halfway between A and B.

A —————✕————— B

10 Write a fraction to show how much of this mask is green.

$\dfrac{1}{2}$
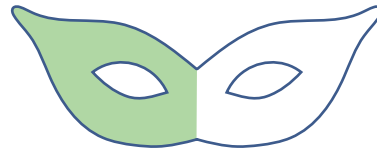
11 Circle the straw that is folded in half.
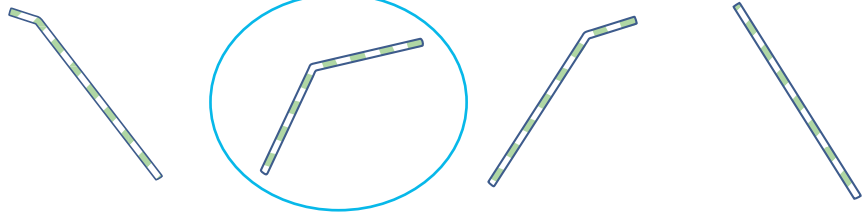
12 What number is on the bottom of the fraction when you write one-half in digits? ___2___

Challenge

13 Sunita eats $\frac{1}{2}$ of a whole flapjack. What fraction of the flapjack is left? ___$\frac{1}{2}$___

14 Yes or no? $\frac{1}{2} + \frac{1}{2}$ = one whole   Yes ✓   No ☐

15 Tick the mug that is $\frac{1}{2}$ full.

☐   ☐   ✓   ☐
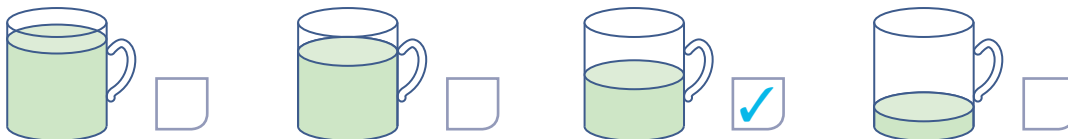
**16** What fraction of this rectangle is green?

___$\frac{1}{2}$___
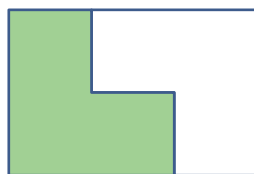
17 Yes or no? This bar has been split into two halves.

Yes ☐   No ✓

18 The first $\frac{1}{2}$ of a netball match takes 10 minutes.

How long is the whole netball match? ___20___ min

Find one-half of sets of objects

Key point

To find **one-half** of **a set of objects**, sort the objects into **two equal groups**.

$\frac{1}{2}$ of this set of beans is **green**.

Get started

1 Tick the box which is half empty.

☐ ☐ ☑
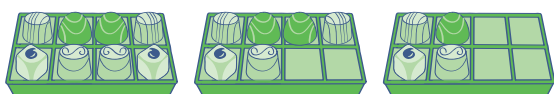
2 Yes or no? Half of the apples are green.

Yes ☑ No ☐
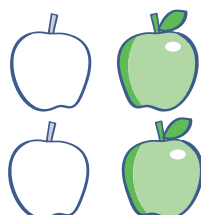
3 What fraction of this set of cubes is green?

$\frac{1}{2}$
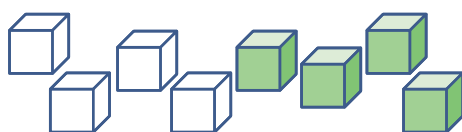
4 Colour half of this set of buttons.
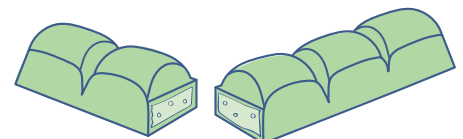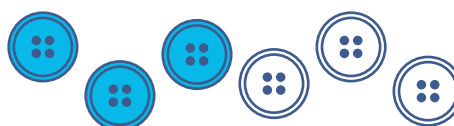
5 Jenna eats half of the cakes on this plate.

How many does she eat? __2__
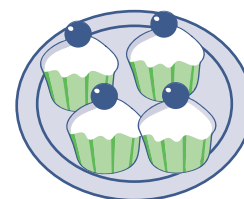
6 Colour $\frac{1}{2}$ of this set of t-shirts.
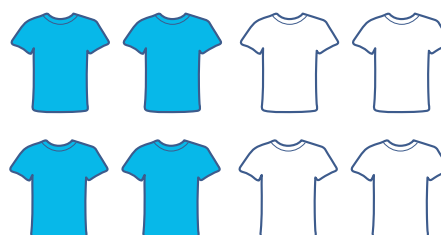
Now try these

7 Draw a ring around half of these bricks.
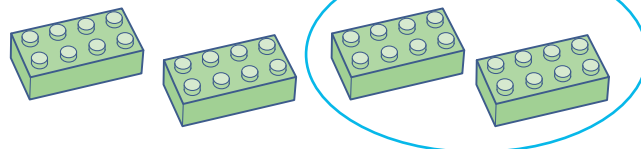
8 How many biscuits are in $\frac{1}{2}$ of this pack? __4__
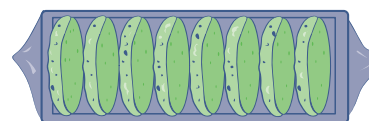
9 How many cherries will be left if Sam eats half of them? __2__

10   Yes or no? Half of these shoes are stripy.

Yes ✓   No ☐
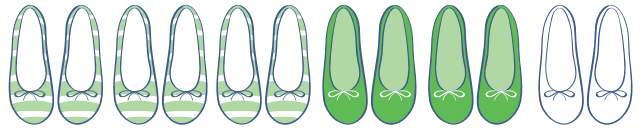
11   Half of two pears is how many pears?   __1__

12   A packet has 8 sweets. How many sweets are in $\frac{1}{2}$ of the packet?   __4__

Challenge

13   Which picture shows a loop around half the coins in the set?   Picture __C__
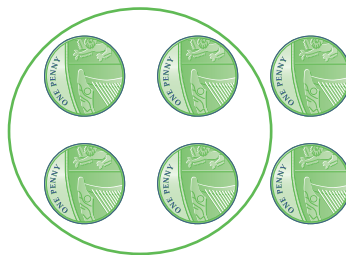
Picture A   Picture B   Picture C

14   When an egg box is half full it holds 3 eggs.

How many does it hold when it is full?   __6__

15   Yes or no? Half of these fingernails
are painted green.

Yes ✓   No ☐
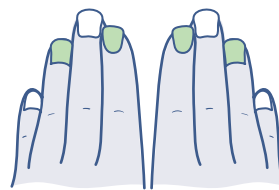
16   10 children go to a party. Half of them are girls. How many are boys?   __5__

17   Tick the picture that does not have one-half of the rectangle shaded green.

☐   ☐   ☐   ✓
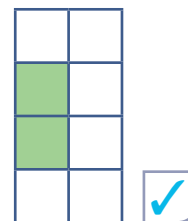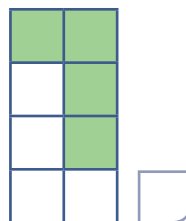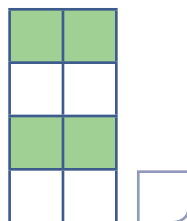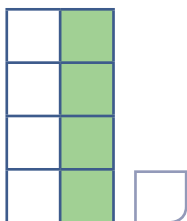
18   If $\frac{1}{2}$ a box is 5 muffins, how many muffins are in the whole box?   __10__

Work out half of numbers and half of lengths

Key point

Half of **a number of objects** is found by sorting them into **two equal groups**.

Half of **6 ducks** is **3 ducks**.   Half of **6** is **3**. $\frac{1}{2}$ of **6** is **3**.

Half a length can be shown by splitting the line into **two equal parts**.

Get started

1 What number is half of 4?

___2___

2 Find half of 2.

___1___

3 Draw a ring around half of these 6 bananas.

4 How many is $\frac{1}{2}$ of 6 bananas?

___3___

5 Colour half of these 10 sweets.
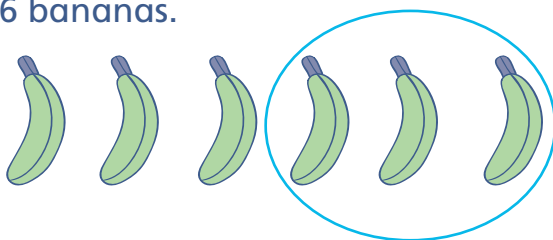
6 Yes or no? This dot shows halfway between A and B.

A ———————●——————— B

Yes ✓   No ☐

Now try these

7 Yes or no? Half of 6 is 4.   Yes ☐   No ✓

8 One whole pizza has 8 slices.

How many slices is half the pizza? ___4___
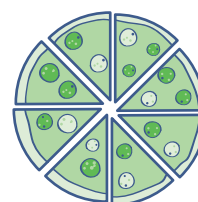
9 Draw a cross on the line to show halfway between A and B.

A ————————✕———— B

10 What is half of 6? _____3_____
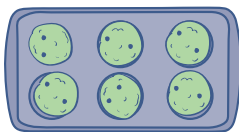
11 Fill in the missing number.

$\frac{1}{2}$ of 10 is ⬜ 5

12 A farmer has 6 goats.
He puts half of them into a pen.
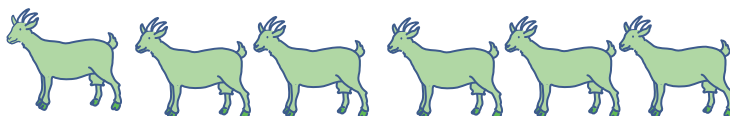
How many is that? _____3_____

Challenge

13 It takes Ali 6 steps to walk from the door to his chair. How many
steps does it take him to walk halfway from the door to his chair? _____3_____

14 Which letter shows the halfway point between the two houses? _____C_____

A　　　　　B　　　　　C　　　　　D　　　　　E

15 A cake is cut into equal slices. One-half of the cake is 3 slices.

How many slices are in the whole cake? _____6_____

16 A line is the same length as 10 cubes.
How many cubes are the same
length as half the line? _____5_____
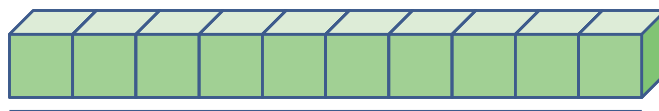
17 Complete the pattern.

$\frac{1}{2}$ of 10 is 5　　$\frac{1}{2}$ of 8 is 4　　$\frac{1}{2}$ of 6 is ⬜ 3　　$\frac{1}{2}$ of 4 is ⬜ 2　　$\frac{1}{2}$ of 2 is ⬜ 1

18 The opposite of halving a number is doubling it. If you double 10, you get 20.

What is half of 20? _____10_____

Understand the word 'quarter'

Key point

The word '**quarter**' is used when something is split into **four equal parts**.
One of these parts is a **quarter**. A quarter is a fraction.

A **quarter** of this shape is green.
Four quarters make **one whole**.

Get started

1 Tick the shape that is one-quarter green.
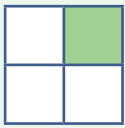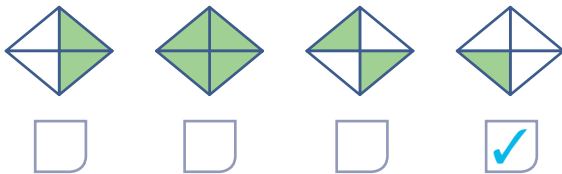
☐ ☐ ☐ ✓

2 Colour a quarter of the circle.
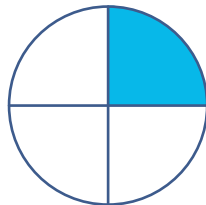
3 Copy the word.

quarter ___*quarter*___

4 Yes or no? This shows four-quarters of a tart.

Yes ✓   No ☐
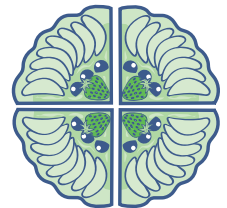
5 How many quarters make one whole? ___4___ quarters

6 Yes or no? One-quarter of this square is green.
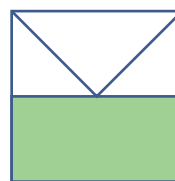
Yes ☐   No ✓

Now try these

7 This clock face is split into quarters.
How many quarters are green? ___1___

8 How many quarters of the clock face are not green? ___3___

9 How many people can each eat one-quarter of this waffle? ___4___

10 Yes or no? 5 quarters is equal to one whole.   Yes ☐   No ✓

11 Colour one-quarter of this chest of drawers.

12 A whole melon is cut into quarters. How many quarters are there?
____4____ quarters

Challenge

13 Tick the glass that is one-quarter full.

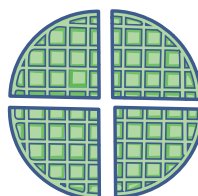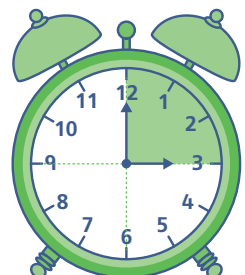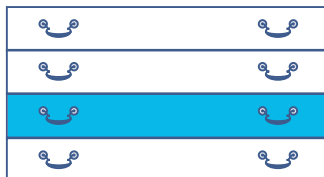☐   ☐   ☐   ✓
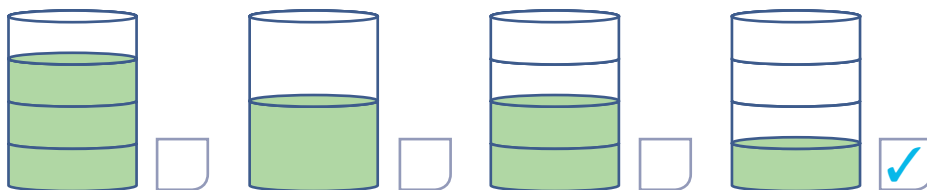
14 Colour one-quarter of this pattern.

15 Amy folds a square piece of paper into quarters.
How many quarters are there? ____4____ quarters

16 Two whole oranges are cut into quarters.
How many quarters are there altogether? ____8____ quarters

17 The big hand of a clock points to 12.
It then turns clockwise through one-quarter of a full turn.
What number does it point to now? ____3____
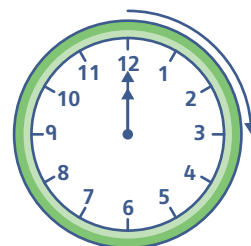
18 Heidi and Ben each eat one-quarter of a curry.
Elena eats the rest of the curry.
Does Elena eat half of the curry?

Yes ✓   No ☐

Check-up test 1

1 Tick the bottle that is half full.

✓

1 mark

2 How many pears are whole? _____2_____

1 mark

3 Circle the shorter length of time.

half an hour   (half a minute)

1 mark

4 Yes or no? This shows a whole insect.

Yes ☐   No ✓
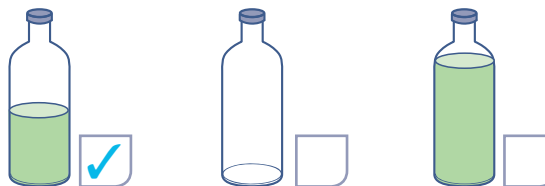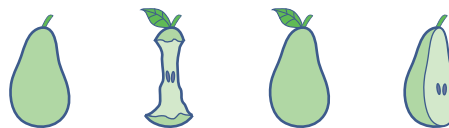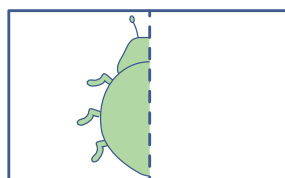
1 mark

5 Draw a cross on the line to show halfway between A and B.

A

✗

B

1 mark

6 Yes or no? This bar has been split into two halves.
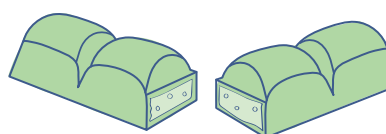
Yes ✓   No ☐

1 mark

7 Yes or no? Half of the parrots are green.

Yes ☐   No ✓

1 mark

8 Draw a ring around half of these strawberries.

1 mark

9 Eight children go to a party.
Four of them are girls. What fraction are boys? $\frac{1}{2}$

1 mark

10 What number is half of 6? ____3____
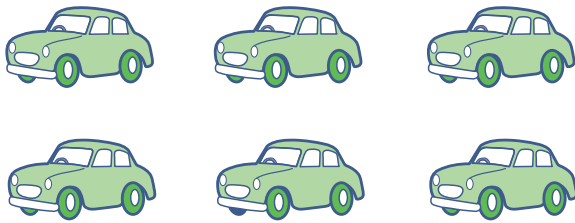
11 A farmer has 10 cows.
She puts half of them
into a shed.
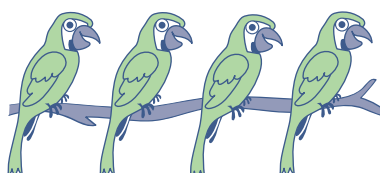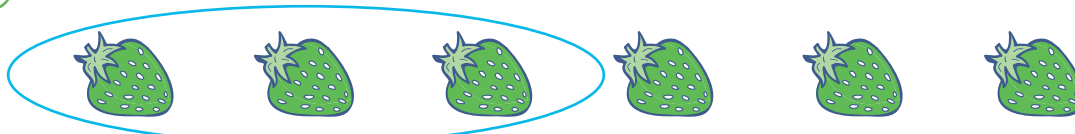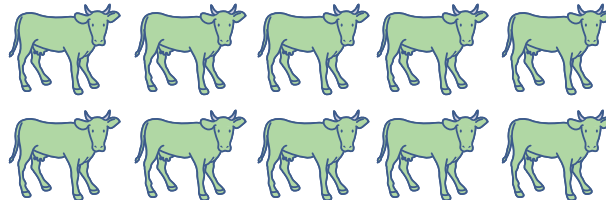
How many is that? ____5____

12 The opposite of halving a number is doubling it.
If you double 6, you get 12.

What is half of 12? ____6____

13 Yes or no? One-quarter of this square is green.
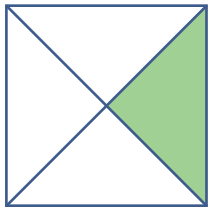
Yes ✓　No ☐

14 Colour one-quarter of this shape.

15 Jack, Dan and Theo each eat
one-quarter of a cake.
Poppy eats the rest of the cake.
Does Poppy eat half of the cake?

Yes ☐　No ✓

☐ 1 mark

☐ 1 mark

☐ 1 mark

☐ 1 mark

☐ 1 mark

☐ 1 mark

Total
☐
15 marks

Begin to use the notation '$\frac{1}{4}$'

Key point

The word '**quarter**' is used when something is split into **four equal parts**.

1 of the **4** equal parts is called a **quarter**.
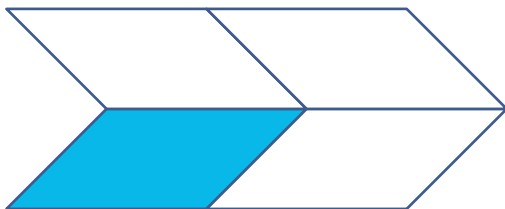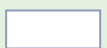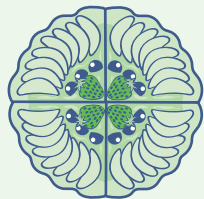
It is written like this: $\frac{1}{4}$

Get started

1 Colour $\frac{1}{4}$ of the wheel.
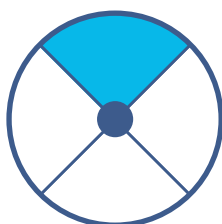
2 Complete the fraction to show one-quarter. $\frac{1}{4}$

3 Yes or no? This shows $\frac{1}{4}$ of a pizza.

Yes ☐   No ✓
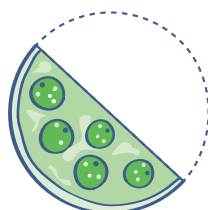
4 Circle one-quarter.

$\frac{2}{1}$ $\frac{3}{4}$ $\left(\frac{1}{4}\right)$ $\frac{1}{2}$

5 Yes or no? Two-quarters make one whole.

Yes ☐   No ✓

6 Tick each square where $\frac{1}{4}$ is green.

✓   ✓   ✓

Now try these

7 Colour $\frac{1}{4}$ of the star.

8 Circle which is more. $\frac{1}{4}$ of a melon $\left(\frac{1}{2}\text{ of a melon}\right)$

9 Colour $\frac{1}{4}$ of the jigsaw.

10 Write a fraction to show how many of the petals are green.

$\frac{1}{4}$

11 Yes or no?
This paper plate is cut into quarters.

Yes ☐   No ✓

12 Which number is on the bottom of the fraction when you write one-quarter in digits? ___4___
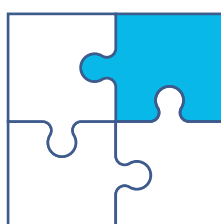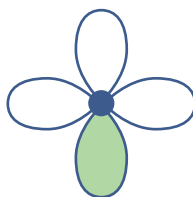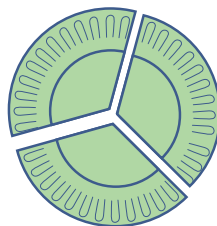
Challenge

13 Tick the picture that shows about $\frac{1}{4}$ of a pie.

☐   ☐   ✓   ☐
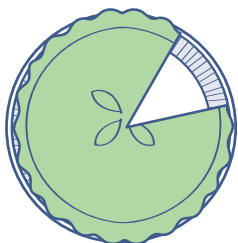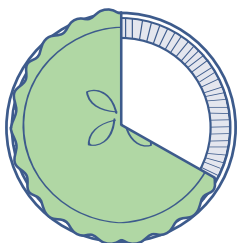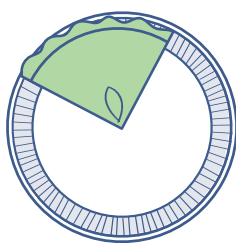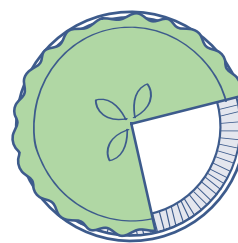
14 Yes or no? $\frac{1}{4} + \frac{1}{4}$ = one whole   Yes ☐   No ✓

15 Draw a line in the box that is $\frac{1}{4}$ of the length of this line.
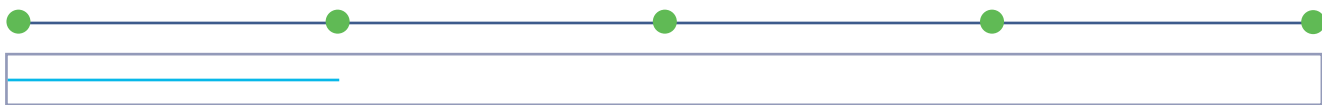
16 Three children each eat $\frac{1}{4}$ of a cereal bar. What fraction of the bar is left? ___$\frac{1}{4}$___

17 Yes or no? Two-quarters is the same as one-half.   Yes ✓   No ☐

18 $\frac{1}{4}$ of a loaf of bread weighs the same as 2 cubes.

How many cubes does the whole loaf of bread weigh?

___8___ cubes

Find one-quarter of sets of objects and numbers

Key point

To find **one-quarter** of **a set of objects**, sort the objects into **four equal groups**.
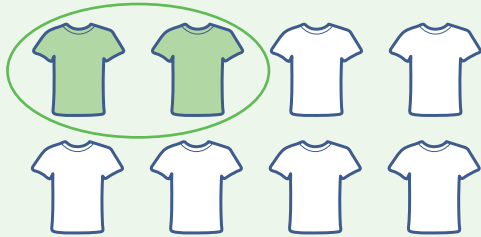
$\frac{1}{4}$ of this set of t-shirts is **green**.

Get started

1 These crisps are in 4 equal groups. Draw a ring around $\frac{1}{4}$ of all the crisps.
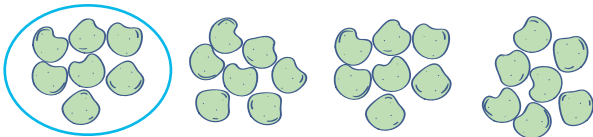
2 Yes or no? One-quarter of the hats are green.   Yes ☐   No ☑
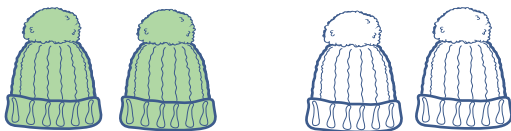
3 What fraction of this set of cubes is green? $\frac{1}{4}$
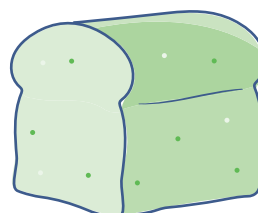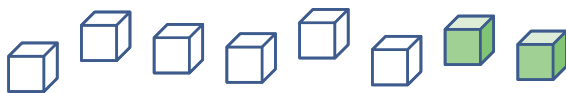
4 Draw a ring around $\frac{1}{4}$ of these mice.
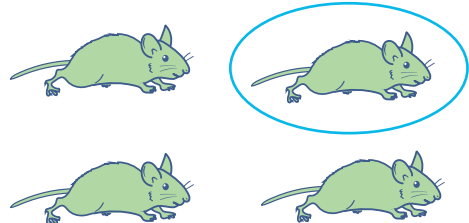
5 Zoë eats $\frac{1}{4}$ of the cakes on this plate.
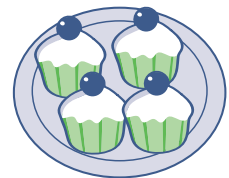
How many cakes does she eat? ___1___

6 Fill in the box.
$\frac{1}{4}$ of 4 grapefruit is ☐1☐ grapefruit.

Now try these

7 Yes or no? One-quarter of this set of shoes is spotty.

Yes ☑   No ☐

8 Colour one-quarter of this set of counters.

9 Which picture shows a loop around one-quarter of the stars in the set?

Picture A

Picture B

Picture C

Picture ___C___

10 One-quarter of 8 coins is how many coins? ___2___

11 How many cherries will be left if Anya eats one-quarter of them? ___3___

12 A fruit tart has 8 equal slices. How many slices is one-quarter of the tart? ___2___

Challenge

13 How many eggs are in $\frac{1}{4}$ of this box? ___2___
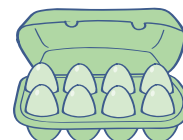
14 Emma has 12 coins. She uses one-quarter of the coins to buy a sweet.

How many coins does she use? ___3___

15 Yes or no? One-quarter of 8 is 2.   Yes ✓   No ☐

16 A line is the same length as 12 cubes. How many cubes are the same length as $\frac{1}{4}$ of the line? ___3___

17 Complete the pattern. $\frac{1}{4}$ of 4 is 1 $\frac{1}{4}$ of 8 is 2 $\frac{1}{4}$ of 12 is 3

18 Tick the picture that does not have one-quarter of the rectangle shaded green.

☐   ☐   ✓   ☐

Understand two-, three- and four-quarters

Key point

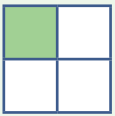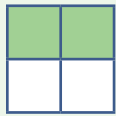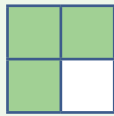The word '**quarter**' is used when something is split into **four equal parts**.
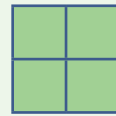Each of those parts is **one-quarter**.

one-quarter   **two-quarters**   **three-quarters**   **four-quarters**

Get started

1   Colour two-quarters of the circle.
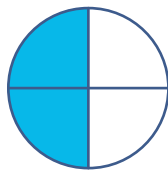
2   Yes or no? This shows three-quarters of a pastry.

Yes ✓   No ☐

3   How many quarters make one whole? __4__ quarters

4   Tick the kite that does not have two-quarters shaded green.

☐   ✓   ☐   ☐

5   Yes or no? This shape has been split into 4 equal parts.

Yes ☐   No ✓

6   Tick each square that has three-quarters shaded.

✓   ☐

☐   ✓
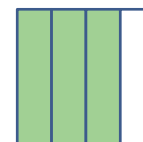
Now try these

7   This clock face is split into quarters.
How many quarters are not green? __3__ quarters
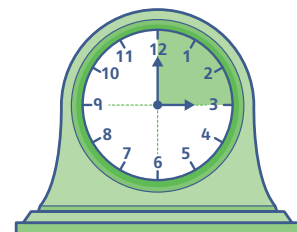
8   Colour three-quarters of this shape.

9 Three people each eat one-quarter of this doughnut.

How many quarters are eaten? ___3___ quarters

10 How much of the doughnut is not eaten? $\frac{1}{4}$

11 Colour two-quarters of this fence.
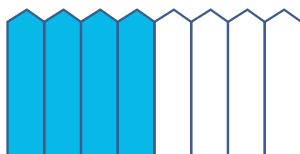
12 Yes or no? Three-quarters and one-quarter together make one whole.

Yes ✓   No ☐

Challenge

13 Tick the jug that is three-quarters full.

✓

14 Circle the words that show what fraction of the gloves are green.

one-quarter   two-quarters   (three-quarters)
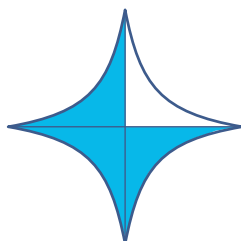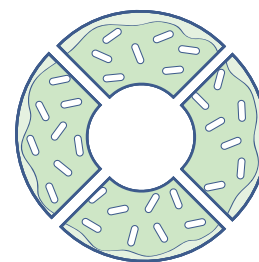
15 How many marbles are there in three-quarters of this set? ___6___

16 The big hand of a clock points to 12. It then turns clockwise through three-quarters of a full turn.

What number does it point to now? ___9___
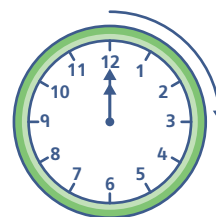
17 Draw a line that is three-quarters of the length of this line.

18 Isla eats two-quarters of a stew. Freddie eats the rest of the stew. Does Freddie eat half of the stew? Yes ✓   No ☐

Identify halves and quarters, and combine them

Key point

A whole sandwich is cut in **half**. Each half is then cut in **half again**.
There are now **four** equal parts. These are **quarters**.

One-half is the same as **two-quarters.**

Two-halves is the same as **four-quarters** or **one whole**.

Get started

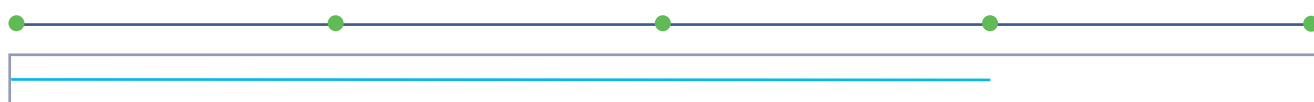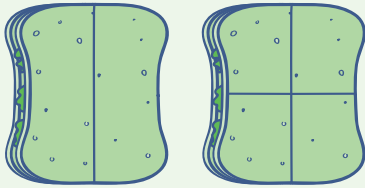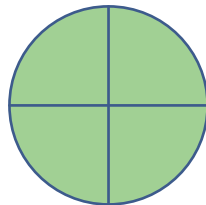**1** How many quarters are the same as one-half?
_____2_____ quarters

2 Yes or no? Half of one-half is one-quarter.

Yes ✓   No ☐

3 How many halves make one whole?
_____2_____ halves

4 How many slices are in one-half of this loaf of bread?
_____2_____

5 Colour one-half of this train.
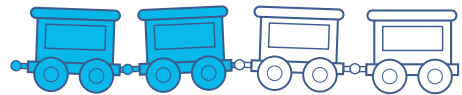
6 Yes or no? One-half and two-quarters together make one whole.
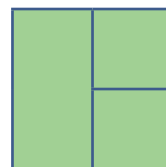
Yes ✓   No ☐

Now try these

7 Tick each square that has one-half shaded.

✓   ✓   ✓   ✓

8 A piece of paper is folded in half and in half again to make quarters.

How many quarters are there? _____4_____ quarters

9 Sofia eats half of this burger. Anil eats a quarter of it.

How much is eaten altogether? ____3____ quarters

10 Yes or no? One-quarter and three-quarters together make one whole.

Yes ☑   No ☐

11 Yes or no? $\frac{1}{4}$ and $\frac{1}{4}$ together make $\frac{1}{2}$.   Yes ☑   No ☐

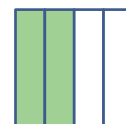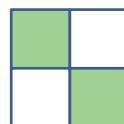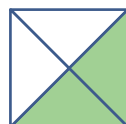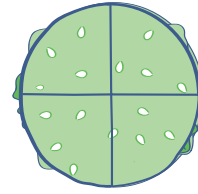**12** Write a fraction to show half of $\frac{1}{2}$. $\frac{1}{4}$

Challenge

13 Tick the bottle that is three-quarters full.

☐   ☑   ☐   ☐

14 Circle the correct answer. $\frac{1}{4} + \frac{1}{2} = ?$

one-quarter   two-quarters   (three-quarters)

15 Luca spends half of his money on toys and one-quarter of his money on sweets. Circle the fraction of his money that is leftover.

$\frac{1}{2}$ $\left(\frac{1}{4}\right)$ $\frac{2}{4}$ $\frac{3}{4}$

16 Ruby is given half of a bowl of salad but she only eats half of it.

What fraction of the whole bowl of salad does she eat? ____$\frac{1}{4}$____

17 Half of the bricks in a bag are red, one-quarter are yellow and the rest are green. What fraction of the bricks are green? ____$\frac{1}{4}$____

18 A pack has 8 pens. Half of the pens are blue, one-quarter are black and the rest are red. How many pens are red? ____2____

Use the notation for halves and quarters

Key point

The number **4** on the bottom of a fraction tells us it is **quarters**.

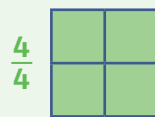The top number tells us **how many** quarters.

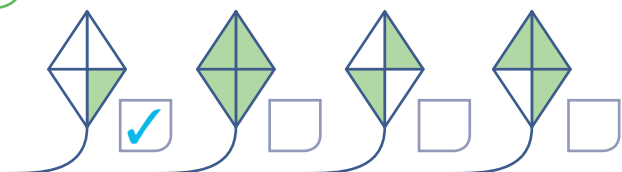$\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$

one-quarter   **two-quarters**   **three-quarters**   **four-quarters**

Get started

1 Tick the kite that is $\frac{1}{4}$ green.

✓

2 How many quarters is $\frac{2}{4}$?

____2____ quarters

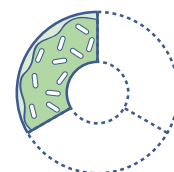**3** Fill in the box to show three-quarters. $\frac{3}{4}$

4 Colour $\frac{1}{2}$ of the fan.
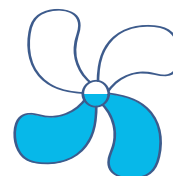
5 Yes or no? This shows $\frac{3}{4}$ of a doughnut.

Yes ☐   No ✓

6 Circle the fraction which is one-half.

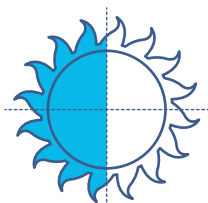$\frac{1}{4}$ $\frac{4}{4}$ $\left(\frac{1}{2}\right)$ $\frac{3}{4}$

Now try these

7 Tick the jar that is $\frac{3}{4}$ full.

✓

8 When three-quarters is written as a fraction, what number is on the bottom of the fraction?   ____4____
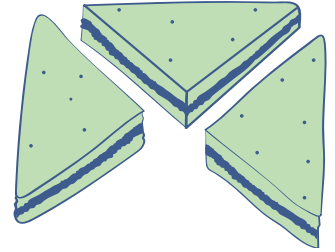
9 Colour $\frac{2}{4}$ of the sun.

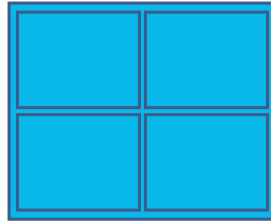**10** Write a fraction to show how much of this sandwich has been eaten. $\dfrac{1}{4}$

11 How much of the sandwich has not been eaten? $\dfrac{3}{4}$

12 Colour $\dfrac{4}{4}$ of this window.
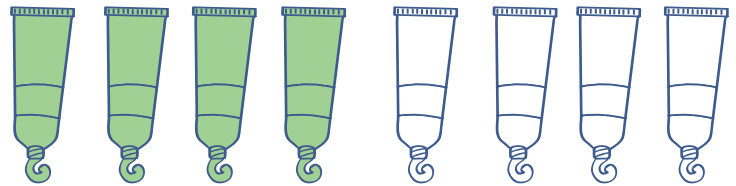
Challenge

13 Yes or no? $\dfrac{3}{4}$ and $\dfrac{1}{4}$ together make one whole. Yes ✓ No ☐

14 Are both these statements true?

$\dfrac{2}{4}$ of the paints are green.

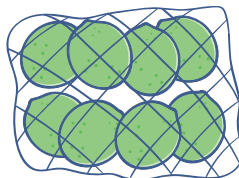$\dfrac{1}{2}$ of the paints are green.

Yes ✓ No ☐

15 How many counters are there in $\dfrac{2}{4}$ of this set? ___4___
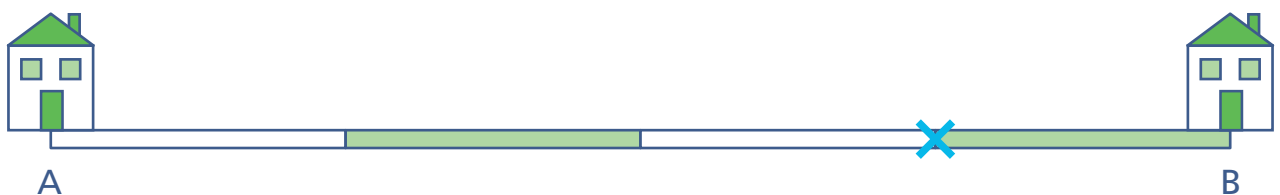
16 What fraction of this whole bag is 4 limes?

$\dfrac{1}{2}$ or $\dfrac{2}{4}$

17 Mark a cross at the point $\dfrac{3}{4}$ of the way from house A to house B.

A   B

18 Answer this question. $\dfrac{1}{2} + \dfrac{1}{4} = \dfrac{3}{4}$

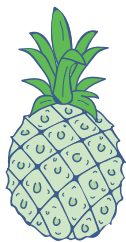# Check-up test 2

1 Complete the fraction to show one-quarter. $\frac{1}{4}$

1 mark

2 Circle the amount which is less.

($\frac{1}{4}$ of a pineapple   )

$\frac{1}{2}$ a pineapple

1 mark

3 Yes or no? $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$ = one whole

Yes ☐   No ✓

1 mark

4 Yes or no? One-quarter of the frogs are green.

Yes ✓   No ☐

1 mark

5 Colour one-quarter of this set of buttons.

1 mark

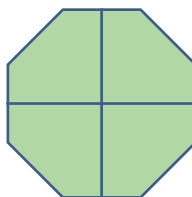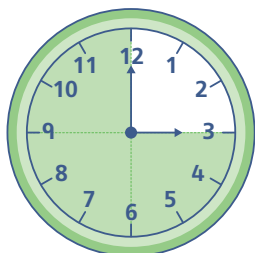**6** Yes or no? One-quarter of 8 coins is 4 coins.

Yes ☐   No ✓

1 mark

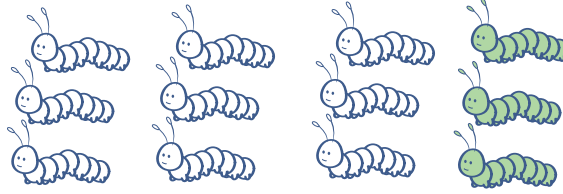**7** Yes or no? This shape has been split into four equal parts.

Yes ✓   No ☐

1 mark

8 This clock face is split into quarters.
How many quarters are green? ___3___ quarters

1 mark

9　Circle the words that show what fraction of the caterpillars are green.
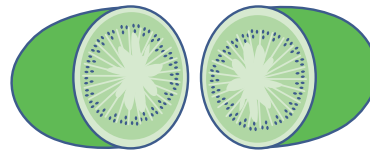
(one-quarter)　two-quarters　three-quarters

1 mark

10　Colour one-half of this pack of tins.

1 mark

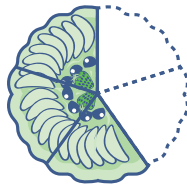**11**　Hannah eats one-half of a kiwi fruit and Li also eats one-half of it. How much of the kiwi is left?

___0___

1 mark

12　A pack has 8 pens. One-quarter of the pens are blue.

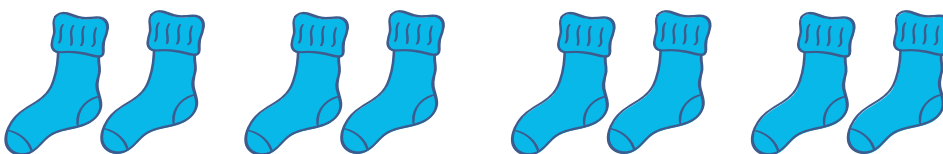How many pens are blue? ___2___

1 mark

13　Yes or no?
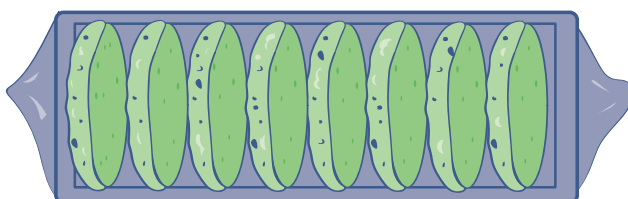This shows $\frac{3}{4}$ of a tart.

Yes ☐　No ☑

1 mark

14　Colour $\frac{4}{4}$ of these socks.

1 mark

15　What fraction of this whole packet is 6 biscuits? ___$\frac{3}{4}$___

1 mark

Total

15 marks

27

Final test

Section 1

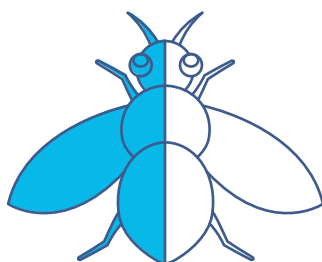**1** How many equal parts is a whole split into to make halves? __2__   1 mark

2 Tick the circle that is half green. ✓   1 mark
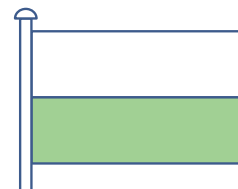
3 Colour half of the fly.   1 mark

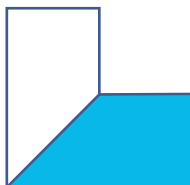**4** Write one word to describe what fraction of this flag is green. __half__   1 mark

5 What fraction of the beads are green? $\frac{1}{2}$ Also accept $\frac{2}{4}$ 1 mark

6 Colour $\frac{1}{2}$ of this shape.   1 mark

7 There are 4 biscuits. Billy eats half of them. How many does he eat? __2__   1 mark

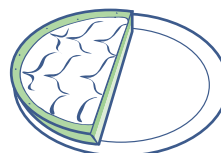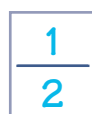**8** What is $\frac{1}{2}$ of 6 sweets? __3__   1 mark

9 Yes or no? Half of this shape is green.
Yes ☐   No ✓   1 mark

10 Write a fraction to show how much of the tart has been eaten. $\frac{1}{2}$ 1 mark
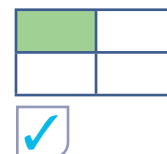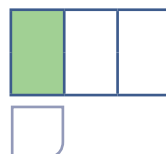
Section 2

11 How many equal parts is a whole split into to make quarters?

___4___

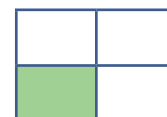**12** Tick the picture that shows one-quarter of a rectangle shaded.

☑

1 mark

13 Colour one-quarter of this pattern.

1 mark

14 Fill in the missing word to show how much is green.

one- _____quarter_____

1 mark

15 What fraction of the grapes are green? $\frac{1}{4}$

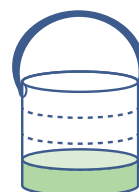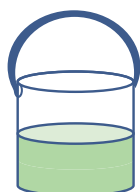1 mark

16 Colour $\frac{1}{4}$ of this shape.

1 mark

17 How many quarters make one whole? ___4___ quarters

1 mark

18 Tick the bucket that is $\frac{1}{4}$ full.

☑
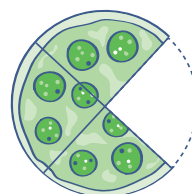
1 mark

19 Yes or no? One-quarter of this shape is green.

Yes ☐   No ☑

1 mark

20 Write a fraction to show how much pizza has been eaten. $\frac{1}{4}$

1 mark

Total

20 marks

End of test

29