Lesson 8 – Fractions - Finding $\frac{1}{3}$

NC Objective:
Recognise, find, name and write fractions 1/2, 1/3 , 1/4 , 2/4 and 3/4 of a length, shape, set of objects or quantity.

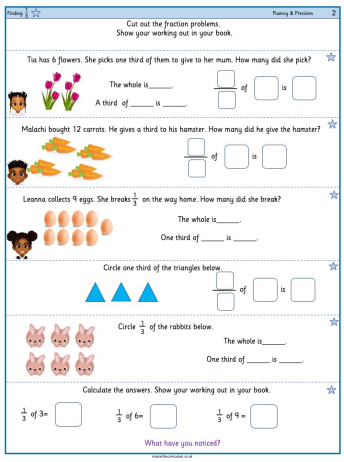
Resources needed:
Differentiated Sheets
Teaching Slides
Cubes/ concrete resources

Vocabulary:
Recognise, find, third, represent, divide, share, quantity, whole, equal

Children build on their understanding of a third and three equal parts to find a third of a quantity. They use their knowledge of division and sharing in order to find a third of different quantities using concrete and pictorial representations to support their understanding.

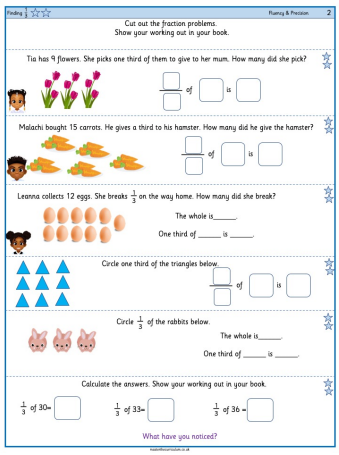
Key Questions:
How many objects make the whole?
Can we split the whole amount into three equal groups?
What is a third of _____ ?
What is staying the same?
What is changing?
How does changing the whole amount change the answer?
Is the answer still worth a third? Explain why?

★ Working Towards



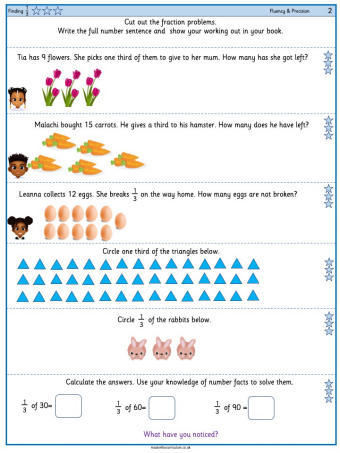
Children on this sheet find a third of simple amounts. They use cubes to support their understanding of thirds.

★★ Working Within



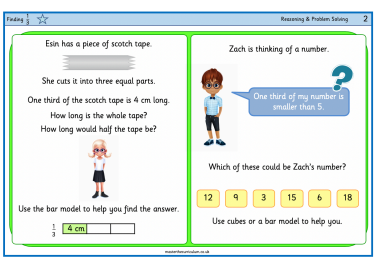
Children on this sheet find a third of larger amounts. They use cubes to support their understanding of thirds.

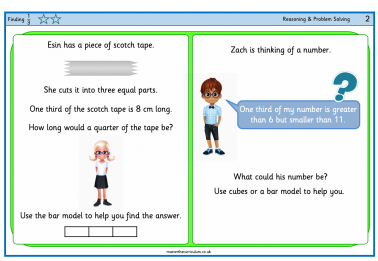
★★★ Greater Depth

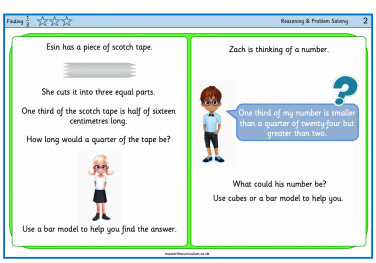


Children on this sheet find a third of larger amounts. They answer two-step questions. They use cubes to support their understanding of thirds.

Reasoning & Problem Solving







Cut out the fraction problems.
Show your working out in your book.

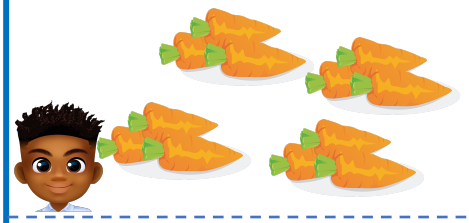
Tia has 6 flowers. She picks one third of them to give to her mum. How many did she pick?

The whole is_____.

A third of _____ is _____.

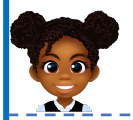
$\frac{\square}{\square}$ of $\square$ is $\square$

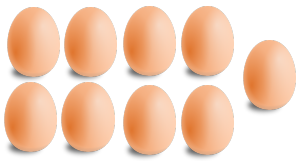
Malachi bought 12 carrots. He gives a third to his hamster. How many did he give the hamster?



$\frac{\square}{\square}$ of $\square$ is $\square$

Leanna collects 9 eggs. She breaks $\frac{1}{3}$ on the way home. How many did she break?



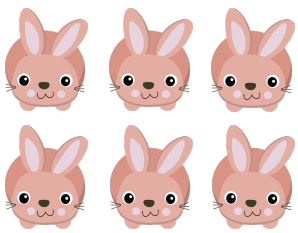


The whole is_____.

One third of _____ is _____.

Circle one third of the triangles below.

$\frac{\square}{\square}$ Of $\square$ is $\square$



Circle $\frac{1}{3}$ of the rabbits below.

The whole is_____.

One third of _____ is _____.

Calculate the answers. Show your working out in your book.

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

What have you noticed?

Cut out the fraction problems.
Show your working out in your book.

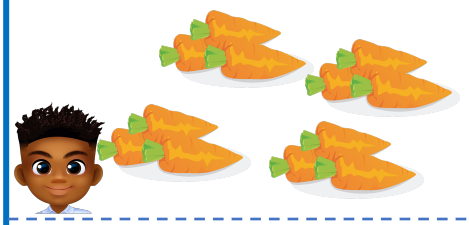
Tia has 6 flowers. She picks one third of them to give to her mum. How many did she pick?

The whole is 6.

A third of 6 is 2.

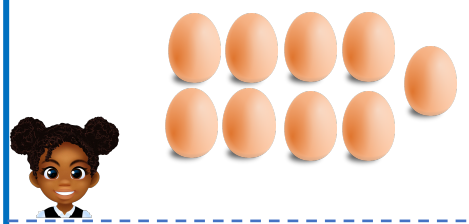
$\frac{1}{3}$ of 6 is 2

Malachi bought 12 carrots. He gives a third to his hamster. How many did he give the hamster?



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

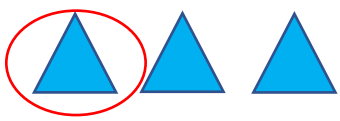
Leanna collects 9 eggs. She breaks $\frac{1}{3}$ on the way home. How many did she break?



The whole is 9.

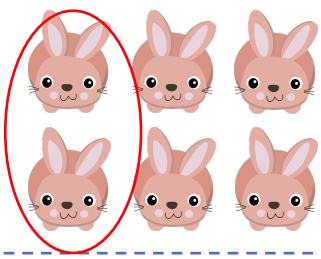
One third of 9 is 3.

Circle one third of the triangles below.



$\frac{1}{3}$ of 3 is 3

Circle $\frac{1}{3}$ of the rabbits below.



The whole is 6.

One third of 6 is 2.

Calculate the answers. Show your working out in your book.

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

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

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

What have you noticed?

Cut out the fraction problems.
Show your working out in your book.

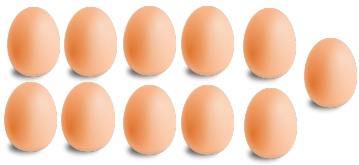
Tia has 9 flowers. She picks one third of them to give to her mum. How many did she pick?

$\frac{\square}{\square}$ of $\square$ is $\square$

Malachi bought 15 carrots. He gives a third to his hamster. How many did he give the hamster?

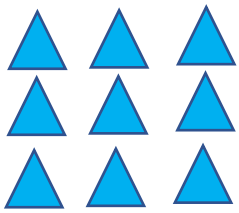
$\frac{\square}{\square}$ of $\square$ is $\square$

Leanna collects 12 eggs. She breaks $\frac{1}{3}$ on the way home. How many did she break?



The whole is_____.

One third of _____ is _____.



Circle one third of the triangles below.

$\frac{\square}{\square}$ of $\square$ is $\square$

Circle $\frac{1}{3}$ of the rabbits below.

The whole is_____.

One third of _____ is _____.

Calculate the answers. Show your working out in your book.

$\frac{1}{3}$ of 30= $\square$ $\frac{1}{3}$ of 33= $\square$ $\frac{1}{3}$ of 36 = $\square$

What have you noticed?

Cut out the fraction problems.
Show your working out in your book.

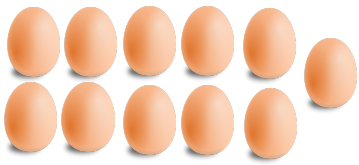
Tia has 9 flowers. She picks one third of them to give to her mum. How many did she pick?

$\frac{1}{3}$ of 9 is 3

Malachi bought 15 carrots. He gives a third to his hamster. How many did he give the hamster?

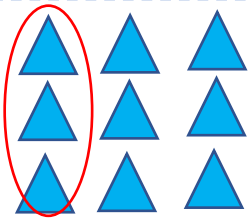
$\frac{1}{3}$ of 15 is 5

Leanna collects 12 eggs. She breaks $\frac{1}{3}$ on the way home. How many did she break?



The whole is 12.

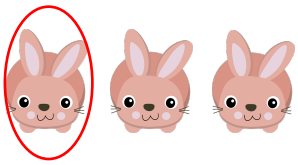
One third of 12 is 4.



Circle one third of the triangles below.

$\frac{1}{3}$ of 9 is 3

Circle $\frac{1}{3}$ of the rabbits below.



The whole is 3.

One third of 3 is 1.

Calculate the answers. Show your working out in your book.

$\frac{1}{3}$ of 30= 10

$\frac{1}{3}$ of 33= 11

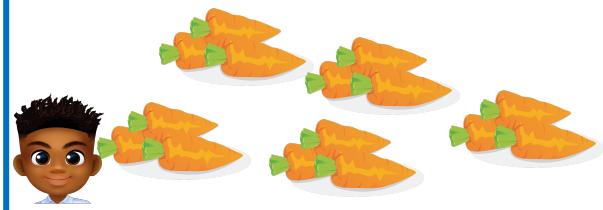
$\frac{1}{3}$ of 36 = 12

What have you noticed?

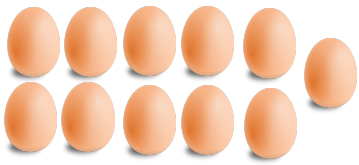
Cut out the fraction problems.
Write the full number sentence and show your working out in your book.

Tia has 9 flowers. She picks one third of them to give to her mum. How many has she got left?

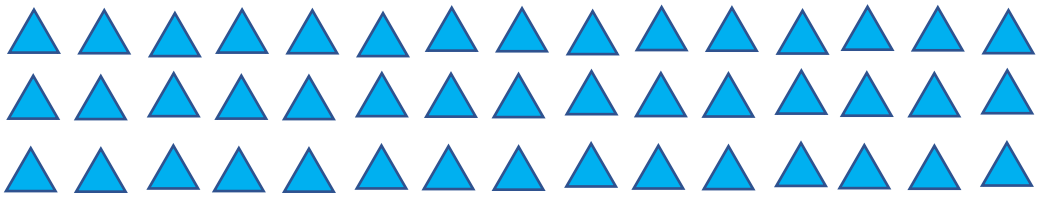
Malachi bought 15 carrots. He gives a third to his hamster. How many does he have left?



Leanna collects 12 eggs. She breaks $\frac{1}{3}$ on the way home. How many eggs are not broken?



Circle one third of the triangles below.



Circle $\frac{1}{3}$ of the rabbits below.

Calculate the answers. Use your knowledge of number facts to solve them.

$\frac{1}{3}$ of 30= ☐ $\frac{1}{3}$ of 60= ☐ $\frac{1}{3}$ of 90 = ☐

What have you noticed?

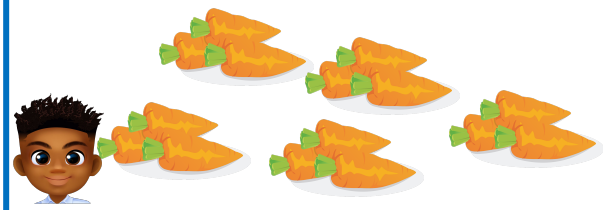
Cut out the fraction problems.
Write the full number sentence and show your working out in your book.

Tia has 9 flowers. She picks one third of them to give to her mum. How many has she got left?

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

9 – 3 = 6

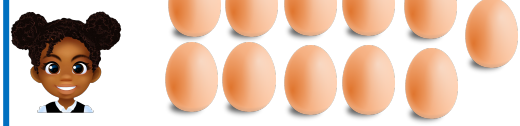
Malachi bought 15 carrots. He gives a third to his hamster. How many does he have left?



$\frac{1}{3}$ of 15 = 5

5 – 15 = 10

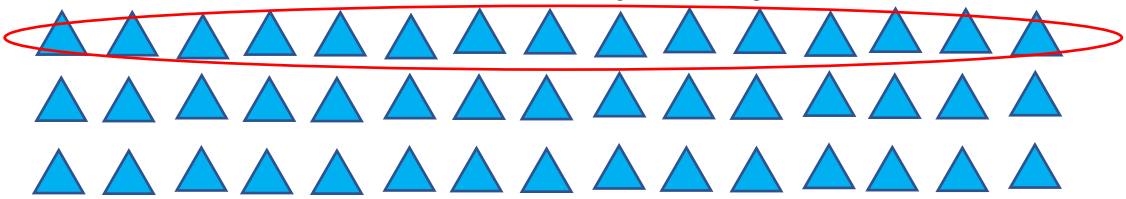
Leanna collects 12 eggs. She breaks $\frac{1}{3}$ on the way home. How many eggs are not broken?



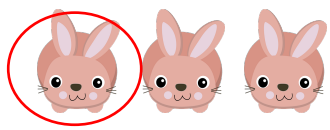
$\frac{1}{3}$ of 12 = 4

4 – 12 = 8

Circle one third of the triangles below.



Circle $\frac{1}{3}$ of the rabbits below.



Calculate the answers. Use your knowledge of number facts to solve them.

$\frac{1}{3}$ of 30= 10

$\frac{1}{3}$ of 60= 20

$\frac{1}{3}$ of 90 = 30

What have you noticed?

Esin has a piece of scotch tape.

She cuts it into three equal parts.

One third of the scotch tape is 4 cm long.

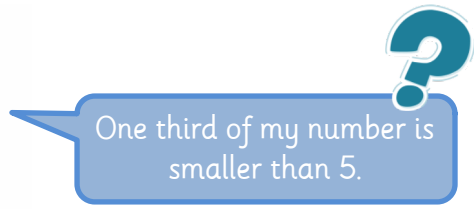
How long is the whole tape?

How long would half the tape be?

Use the bar model to help you find the answer.

$\frac{1}{3}$ | 4 cm | | |

Zach is thinking of a number.



Which of these could be Zach's number?

12	9	3	15	6	18

Use cubes or a bar model to help you.

Finding $\frac{1}{3}$ ☆ Reasoning & Problem Solving 2

Esin has a piece of scotch tape.

She cuts it into three equal parts.

One third of the scotch tape is 4 cm long.

How long is the whole tape?

How long would half the tape be?

Use the bar model to help you find the answer.

$\frac{1}{3}$ | 4 cm | | |

Zach is thinking of a number.

One third of my number is smaller than 5.

Which of these could be Zach's number?

12	9	3	15	6	18

Use cubes or a bar model to help you.

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Esin has a piece of scotch tape.

She cuts it into three equal parts.

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How long is the whole tape?

How long would half the tape be?

Use the bar model to help you find the answer.

$\frac{1}{3}$

4 cm	4 cm	4 cm

12 cm

The whole tape: 12 cm
Half of the tape: 6 cm

Zach is thinking of a number.

One third of my number is smaller than 5.

Which of these could be Zach's number?

12	9	3	15	6	18

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Finding $\frac{1}{3}$ ☆ Answers Reasoning & Problem Solving 2

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$\frac{1}{3}$

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12 cm

The whole tape: 12 cm
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Use cubes or a bar model to help you.

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Esin has a piece of scotch tape.

She cuts it into three equal parts.

One third of the scotch tape is 8 cm long.

How long would a quarter of the tape be?

Use the bar model to help you find the answer.

Zach is thinking of a number.

One third of my number is greater than 6 but smaller than 11.

What could his number be?

Use cubes or a bar model to help you.

Finding $\frac{1}{3}$ ☆☆ Reasoning & Problem Solving 2

Esin has a piece of scotch tape.

She cuts it into three equal parts.

One third of the scotch tape is 8 cm long.

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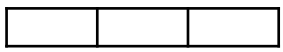
Use the bar model to help you find the answer.



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She cuts it into three equal parts.

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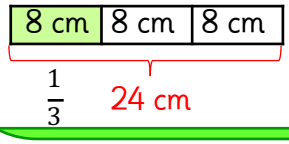
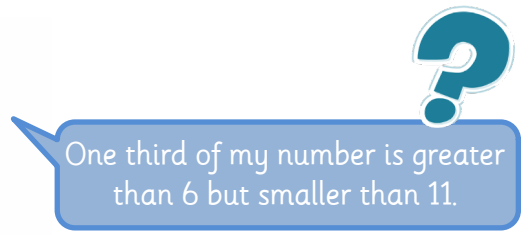
How long would a quarter of the tape be?

Use the bar model to help you find the answer.



The whole tape: 24 cm
A quarter of the tape: 6 cm

Zach is thinking of a number.



What could his number be?

Use cubes or a bar model to help you.

21, 24, 27 or 30

Finding $\frac{1}{3}$ ☆☆ Answers Reasoning & Problem Solving 2

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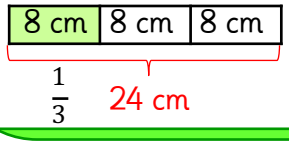
She cuts it into three equal parts.

One third of the scotch tape is 8 cm long.

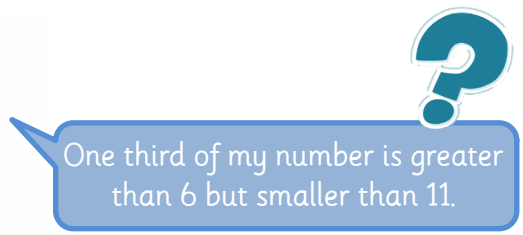
How long would a quarter of the tape be?

Use the bar model to help you find the answer.



The whole tape: 24 cm
A quarter of the tape: 6 cm

Zach is thinking of a number.



What could his number be?

Use cubes or a bar model to help you.

21, 24, 27 or 30

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Esin has a piece of scotch tape.

She cuts it into three equal parts.

One third of the scotch tape is half of sixteen centimetres long.

How long would a quarter of the tape be?

Use a bar model to help you find the answer.

Zach is thinking of a number.

One third of my number is smaller than a quarter of twenty-four but greater than two.

What could his number be?

Use cubes or a bar model to help you.

Finding $\frac{1}{3}$ ☆☆☆ Reasoning & Problem Solving 2

Esin has a piece of scotch tape.

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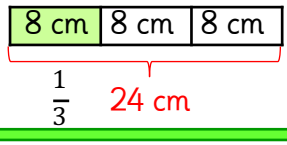
She cuts it into three equal parts.

One third of the scotch tape is half of sixteen centimetres long.

How long would a quarter of the tape be?

Use a bar model to help you find the answer.

Half of 16 cm: 8 cm
A third of the tape: 8 cm
Whole tape: 24 cm
A quarter of the tape: 6 cm



Zach is thinking of a number.

One third of my number is smaller than a quarter of twenty-four but greater than two.

What could his number be?

Use cubes or a bar model to help you.

A quarter of 24 is 6.
A third of Zach's number is between 2 and 6.
It could be: 9, 12 or 15.

Finding $\frac{1}{3}$ ☆☆☆ Answers Reasoning & Problem Solving 2

Esin has a piece of scotch tape.

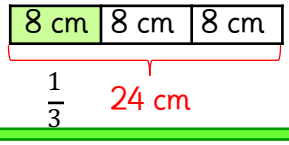
She cuts it into three equal parts.

One third of the scotch tape is half of sixteen centimetres long.

How long would a quarter of the tape be?

Use a bar model to help you find the answer.

Half of 16 cm: 8 cm
A third of the tape: 8 cm
Whole tape: 24 cm
A quarter of the tape: 6 cm



Zach is thinking of a number.

One third of my number is smaller than a quarter of twenty-four but greater than two.

What could his number be?

Use cubes or a bar model to help you.

A quarter of 24 is 6.
A third of Zach's number is between 2 and 6.
It could be: 9, 12 or 15.

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