

Mon 17.4.23

LO: To read and interpret line graphs

books

1) What is half of 9,000?

2) What is the sum of 31 and 79?

What is the difference between 31 and 79?

3) What is the difference between 1,935 m and 2,936 m?

4) Complete the sequence

_____ 14 _____ 26 _____

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4) Complete the sequence

_____ 14 _____ 26 _____

1) What is half of 9,000? 4,500

2) What is the sum of 31 and 79? 110

What is the difference between 31 and 79? 48

3) What is the difference between 1,935 m and 2,936 m? 1,001 m

4) Complete the sequence

8

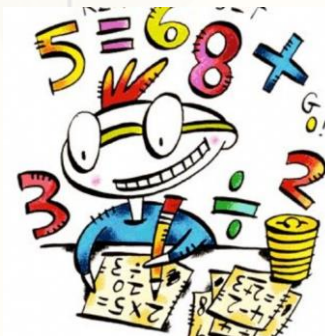
14

20

26

32

Maths Three Repeating Golden Threads



Mastery

Pupils acquire a deep, long-term, secure adaptable understanding

Fluency



Quick and efficient recall of facts and procedures

Application

The use of maths everyday in the real world, outside the classroom.



Key Vocabulary

data



interpret



key

tally chart

pictogram

block diagram

table

total

compare

symbol

Crucial Vocab

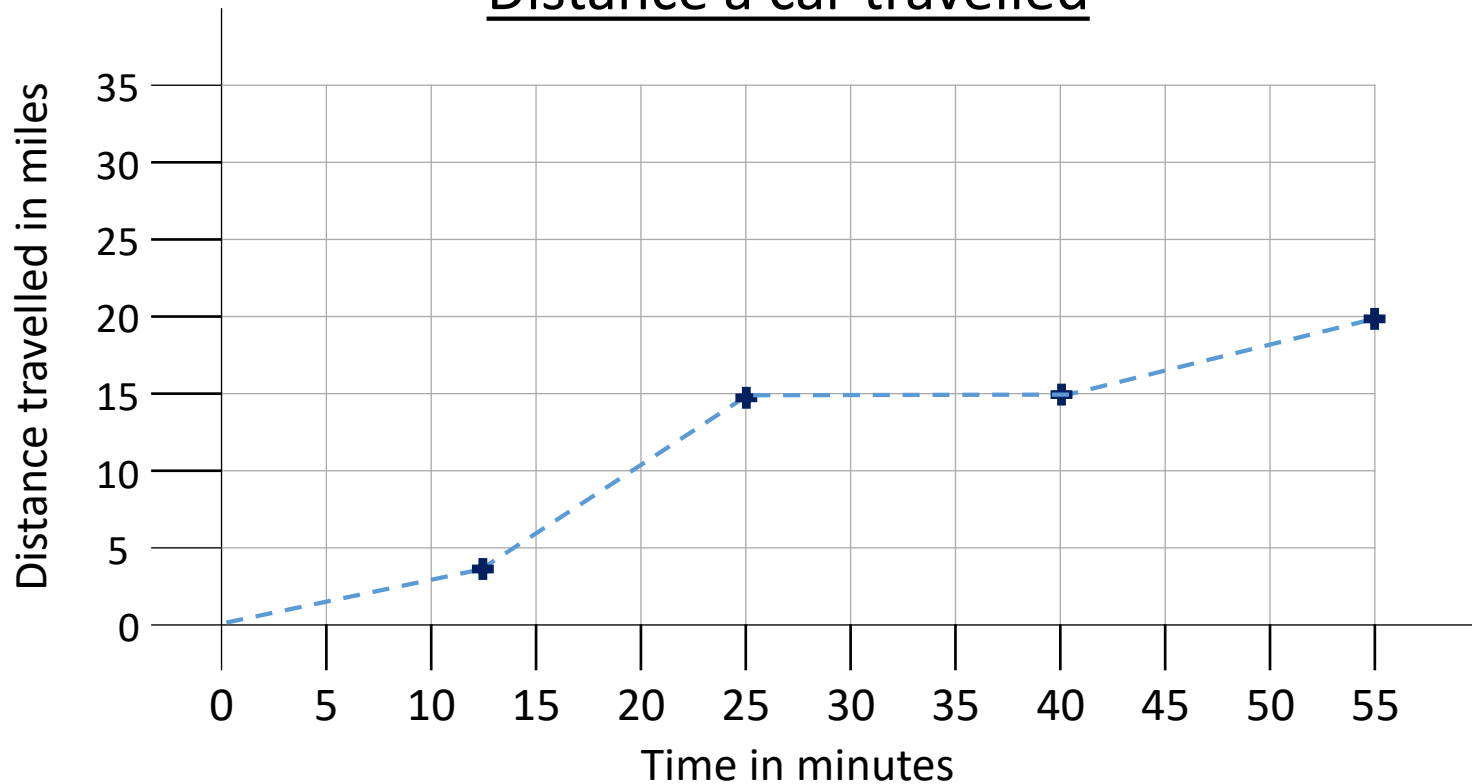
line graph

Key Vocabulary	Key Vocabulary	Key Vocabulary	Key Vocabulary
data	data	data	data
interpret	interpret	interpret	interpret
key	key	key	key
tally chart	tally chart	tally chart	tally chart
pictogram	pictogram	pictogram	pictogram
block diagram	block diagram	block diagram	block diagram
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total	total	total	total
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Distance a car travelled



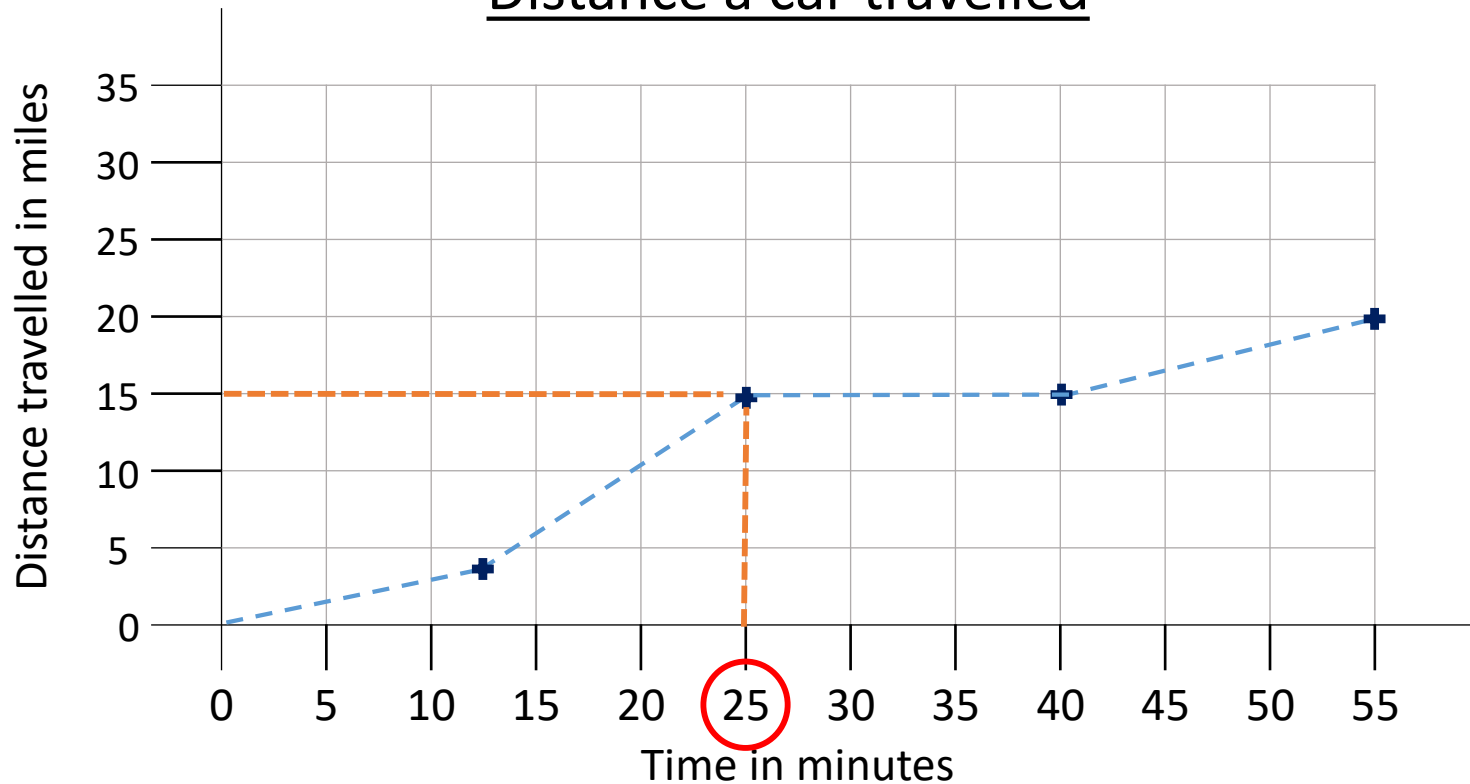
What do you know?

What can you find out?

Have a think



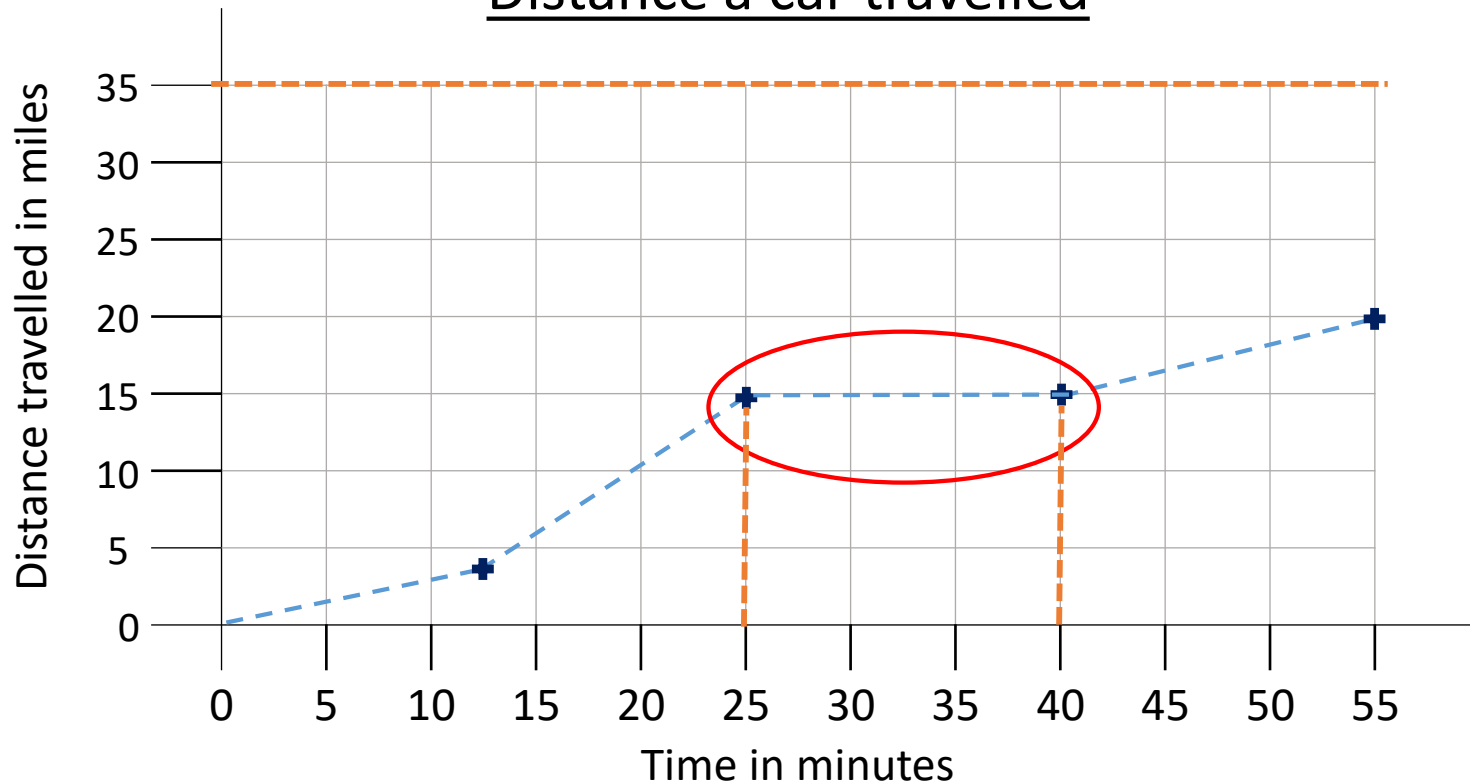
Distance a car travelled



How far had the car travelled in 25 minutes?

The car travelled 15 miles in 25 minutes.

Distance a car travelled



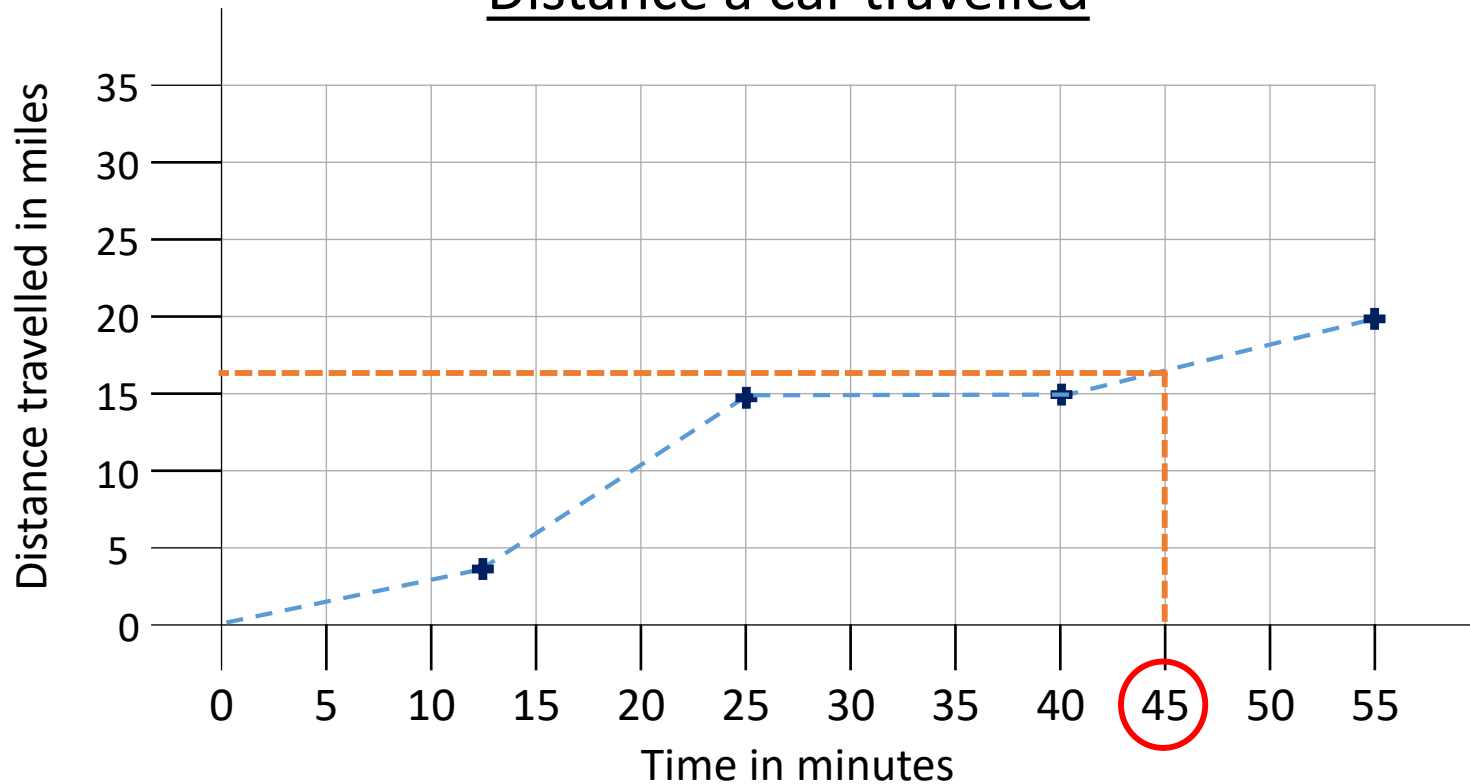
For how long was the car not moving?

The car was not moving for 15 minutes.

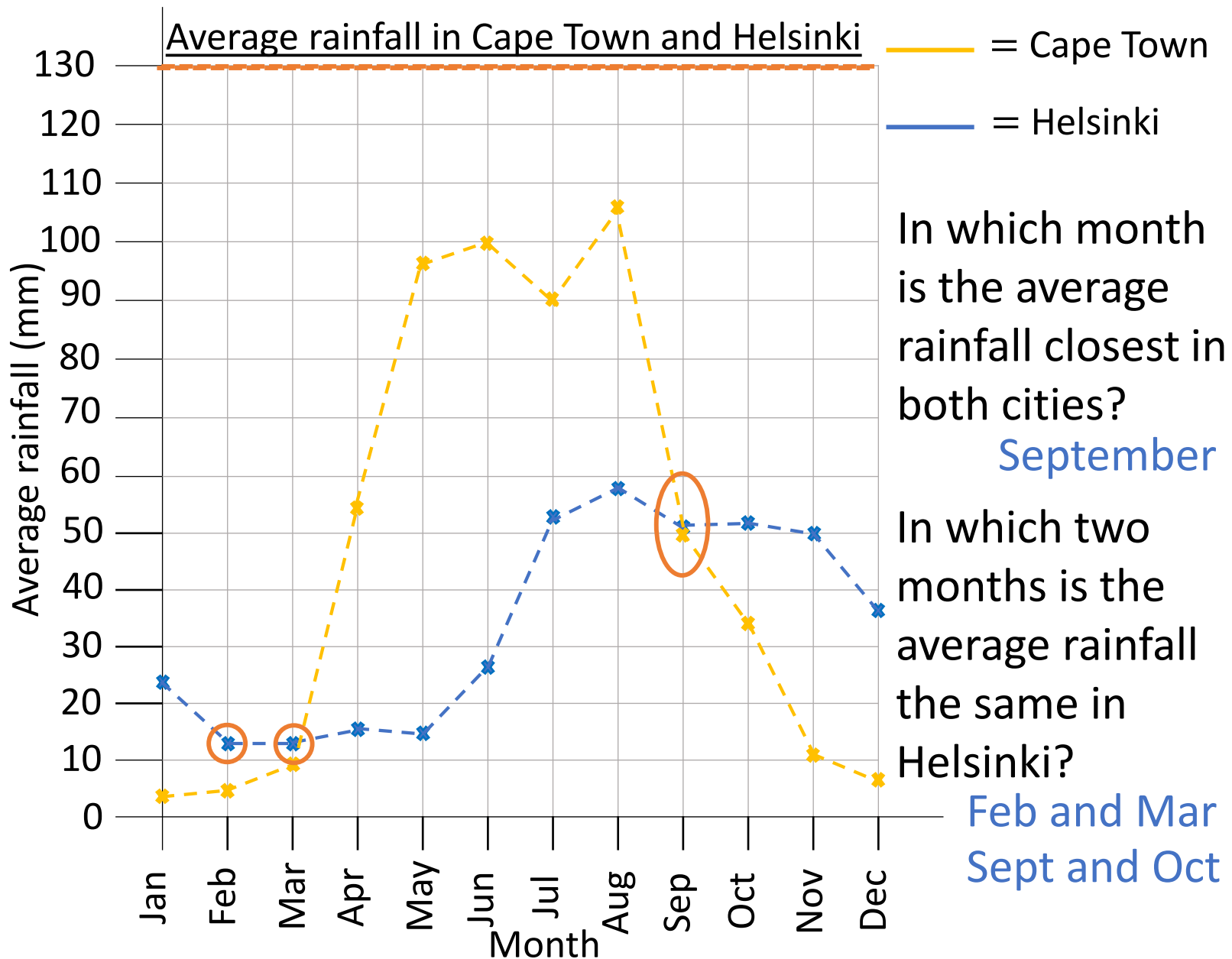
Have a think

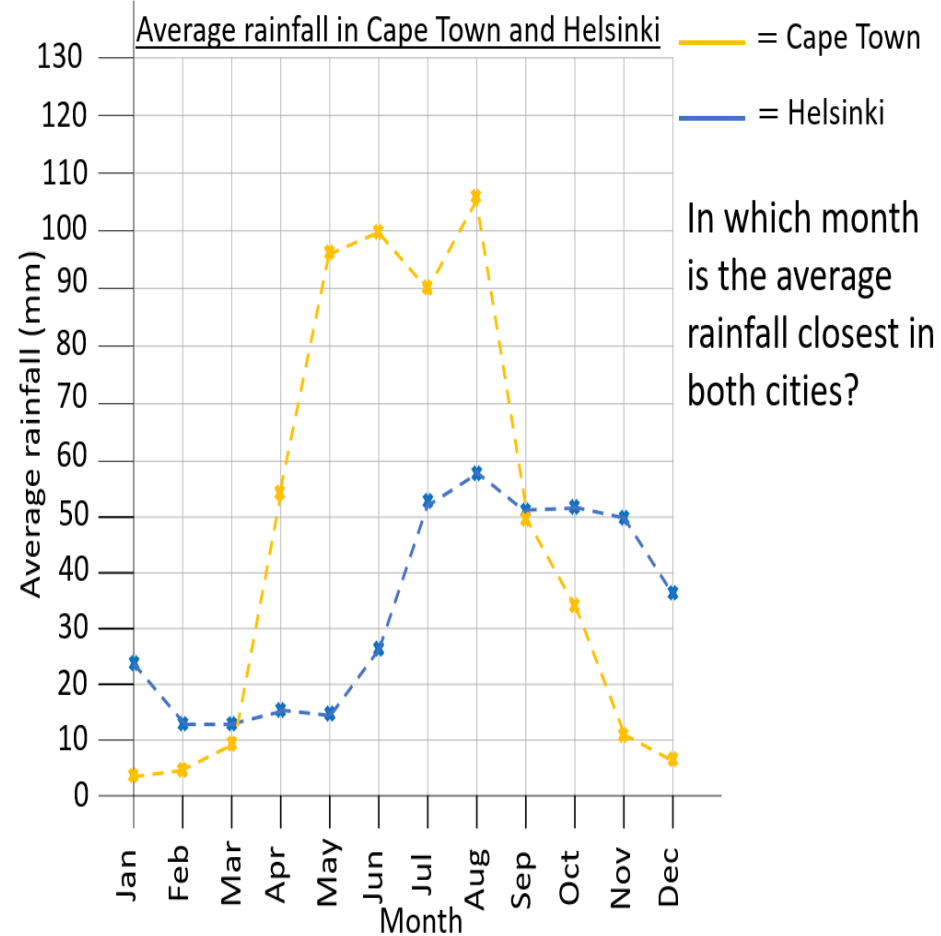
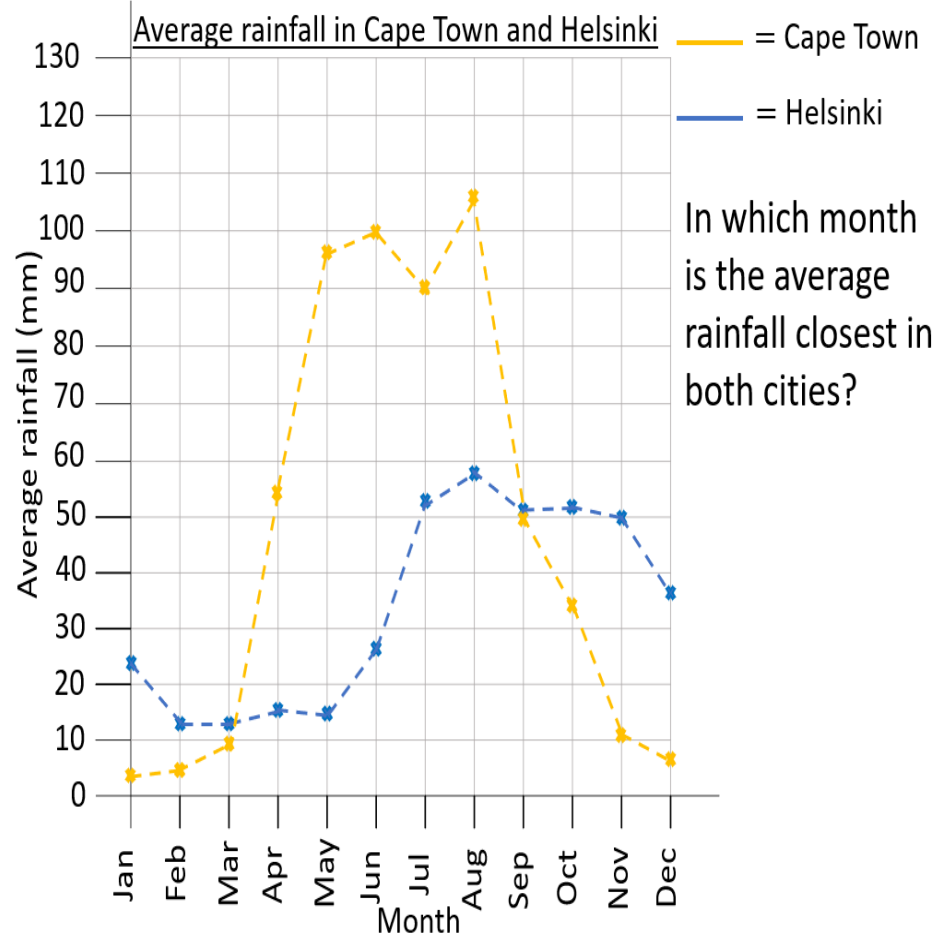


Distance a car travelled



Estimate the distance travelled in 45 minutes. 16 miles

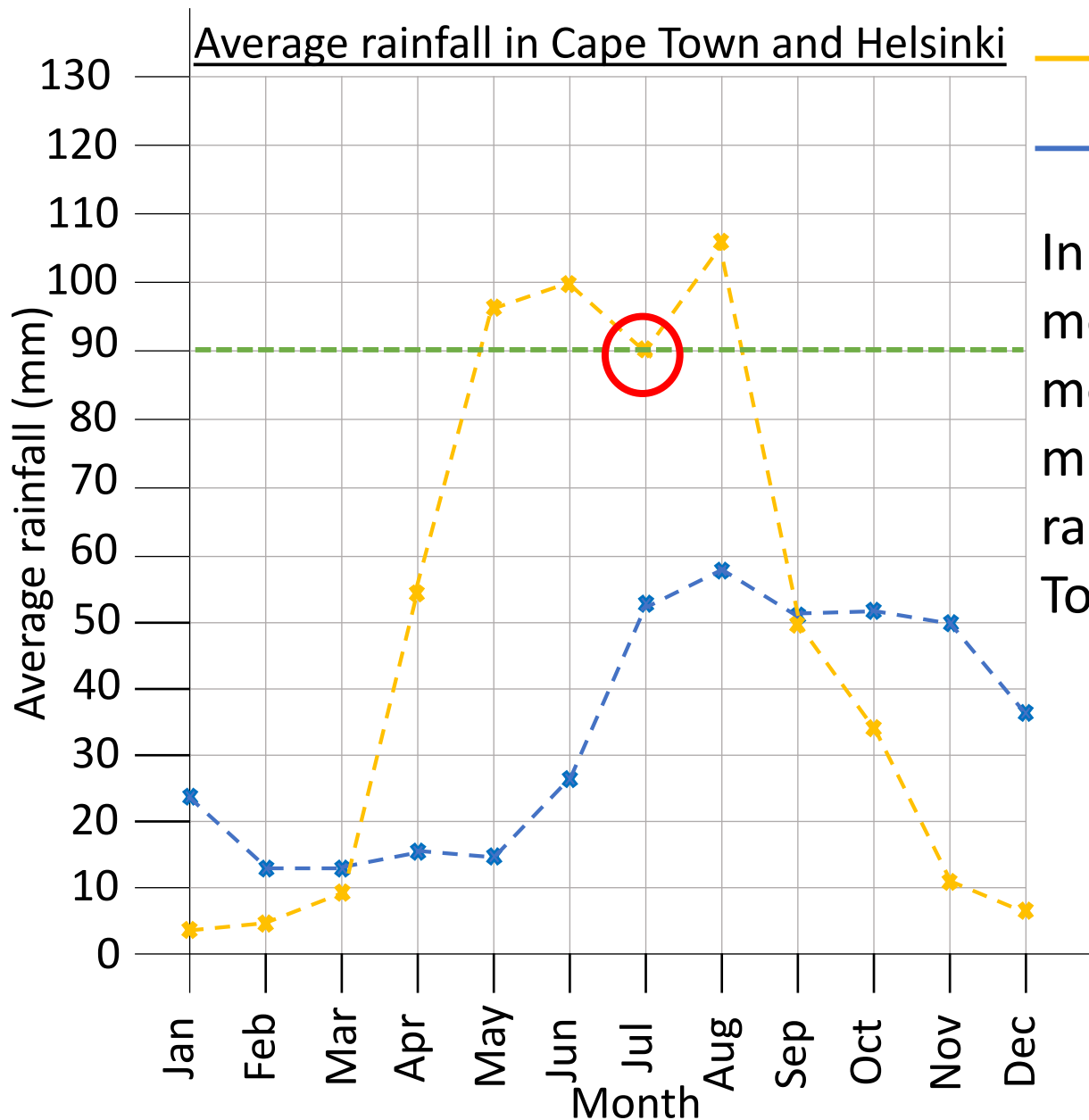




Mon



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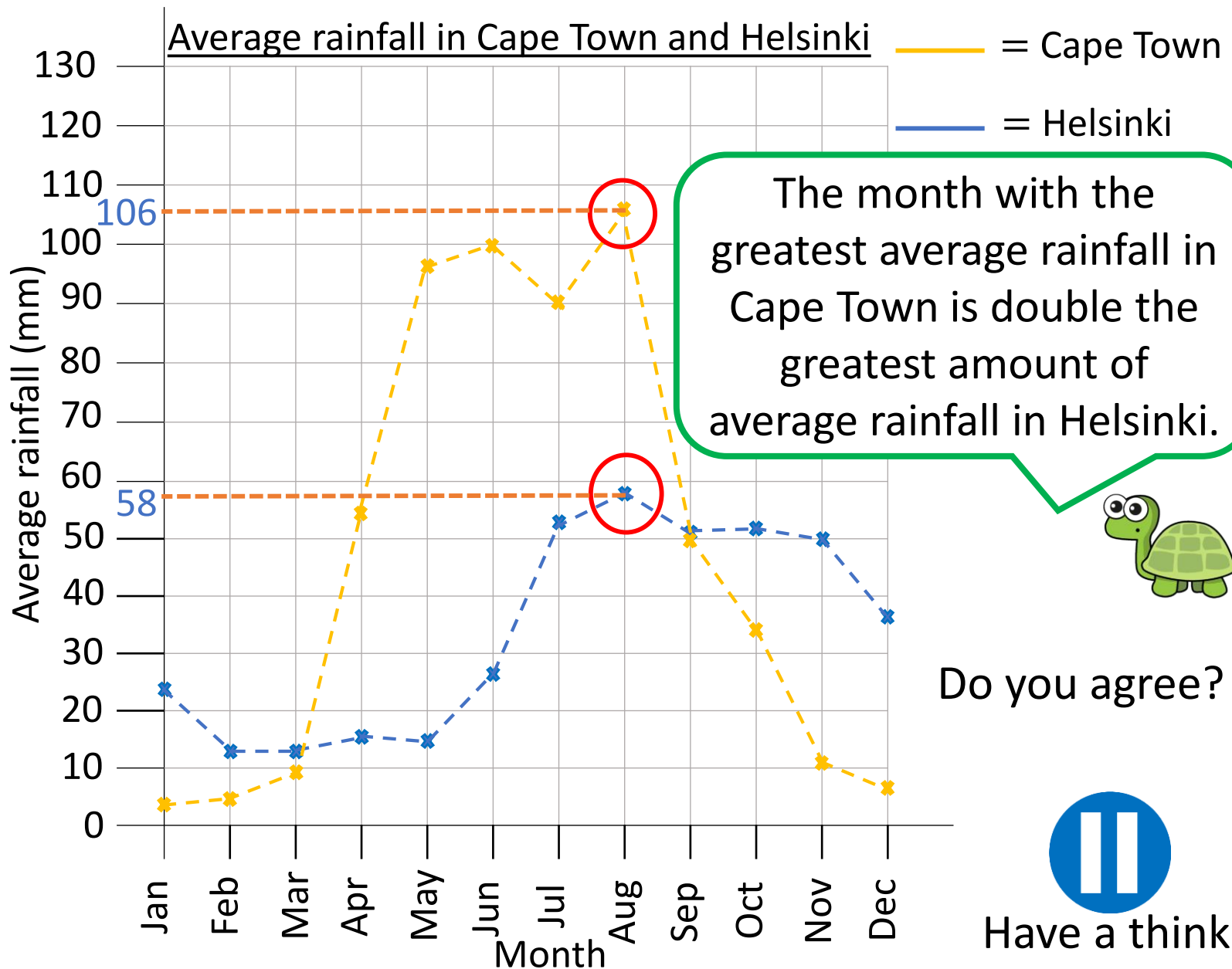
— = Cape Town

— = Helsinki

In how many months is there more than 90 mm of average rainfall in Cape Town? **3 months**



Have a think



Do you agree?



Have a think



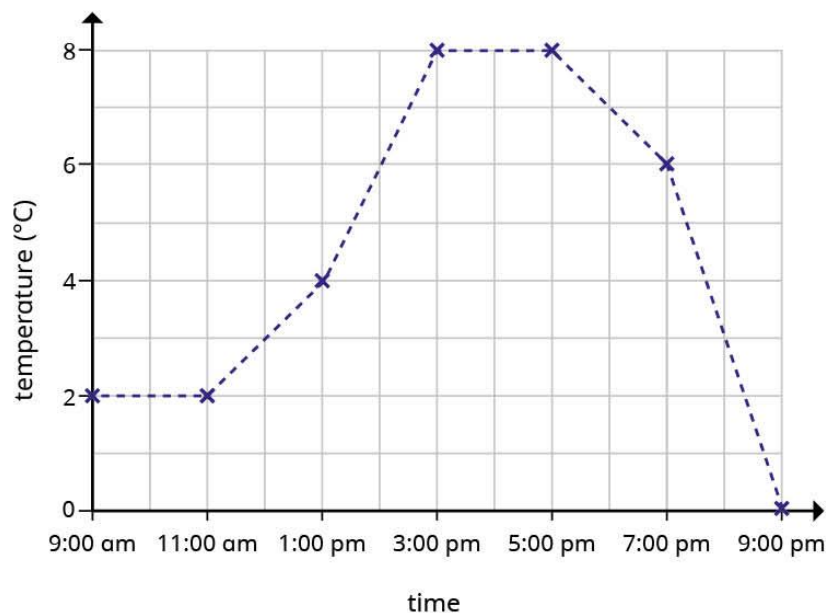
Your turn



Line graphs

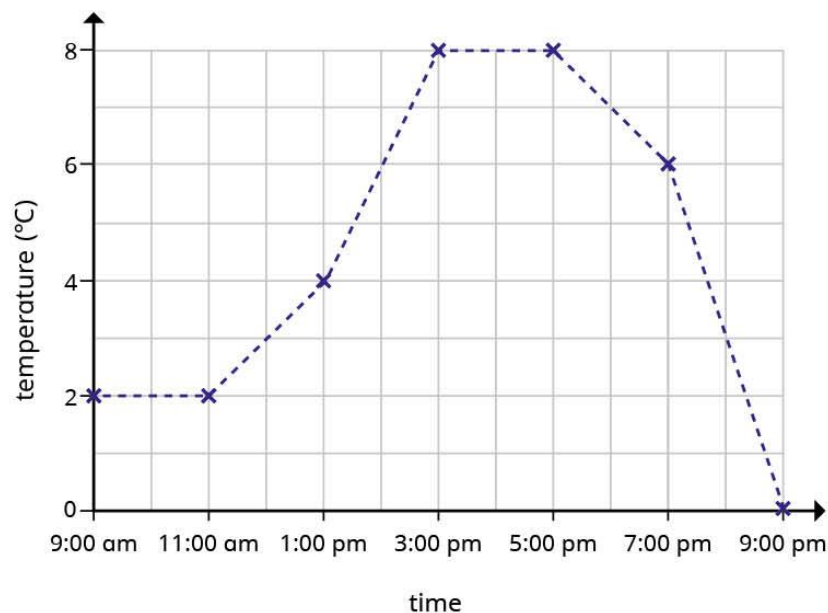


- 1 The graph shows the temperature in Birmingham on one day.



- a) What was the temperature at 1:00 pm?
- b) What was the difference in temperature between 11:00 am and 1:00 pm?

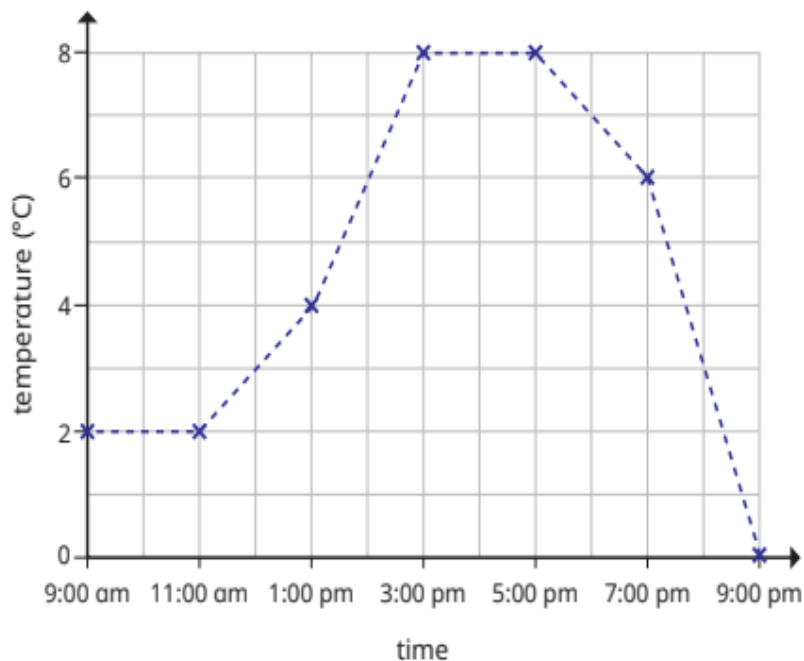
1



c) What was the approximate temperature at 8:00 pm?

d) Approximately, by how much did the temperature rise between noon and 2:00 pm?

- 1 The graph shows the temperature in Birmingham on one day.

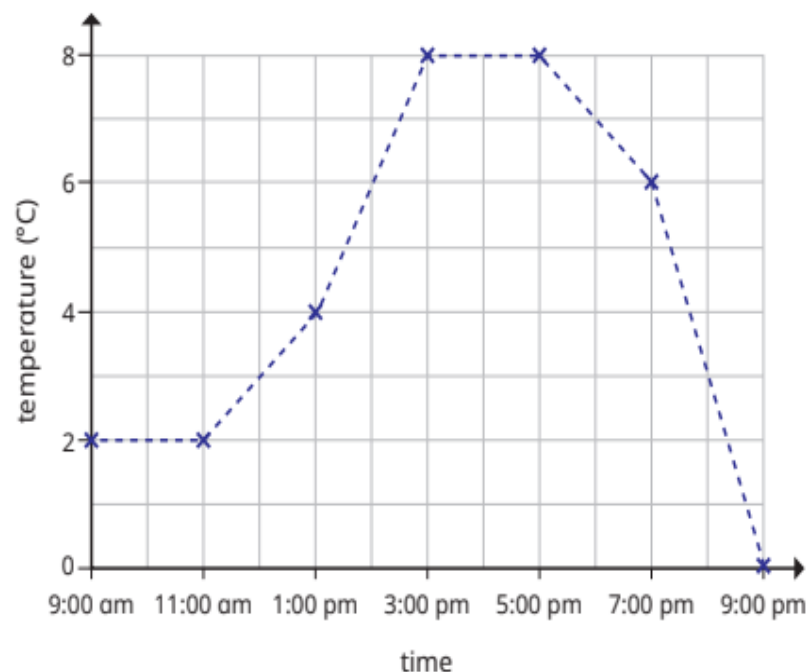


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- b) What was the difference in temperature between 11:00 am and 1:00 pm?
- c) What was the approximate temperature at 8:00 pm?
- d) Approximately, by how much did the temperature rise between noon and 2:00 pm?



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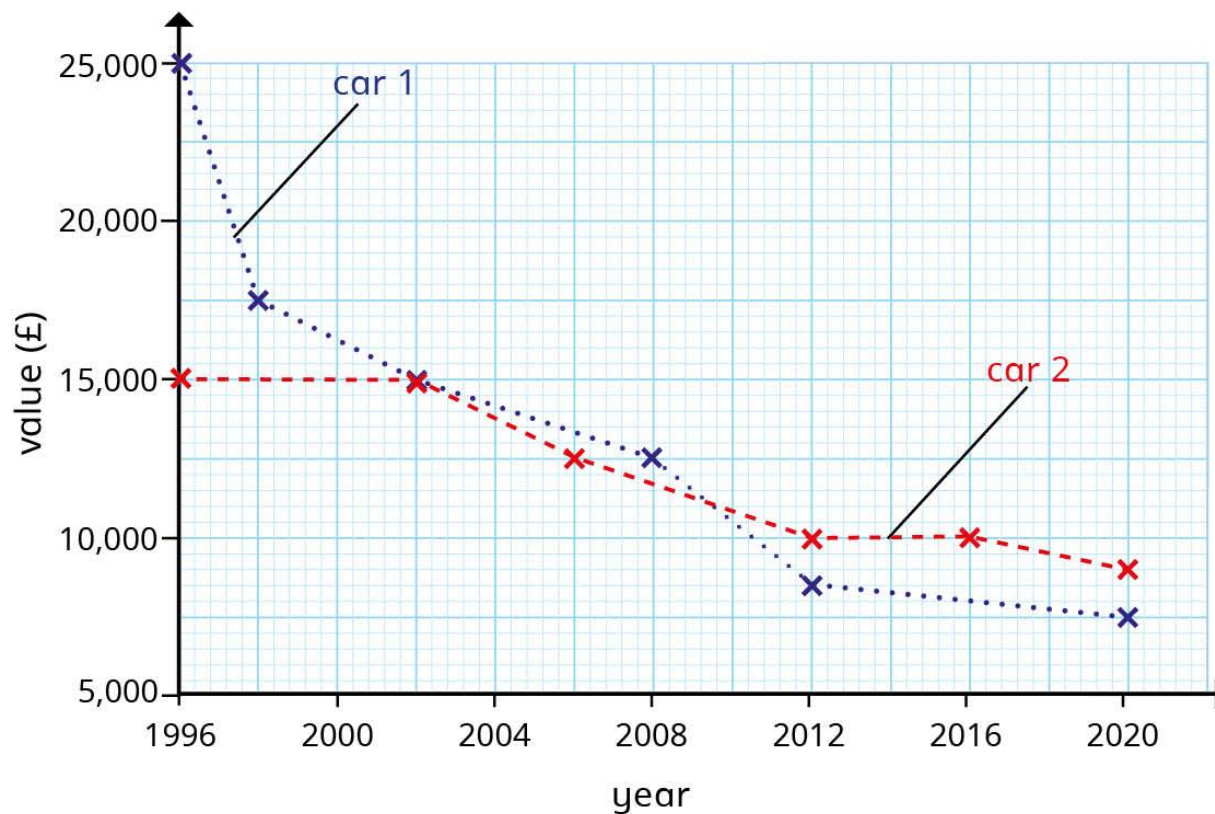
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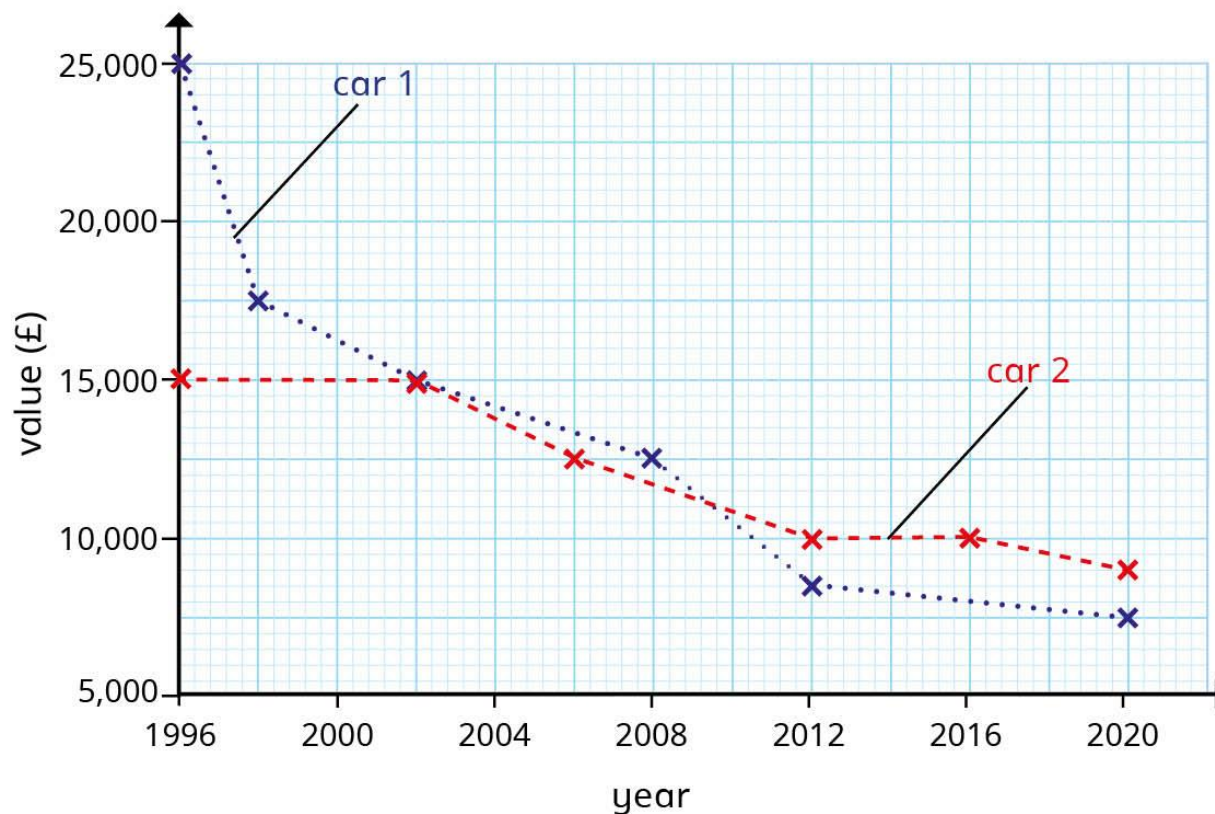
Mon

- 2 The graph shows the values of two cars over time.



- a) In which year was the recorded value of the cars the same?

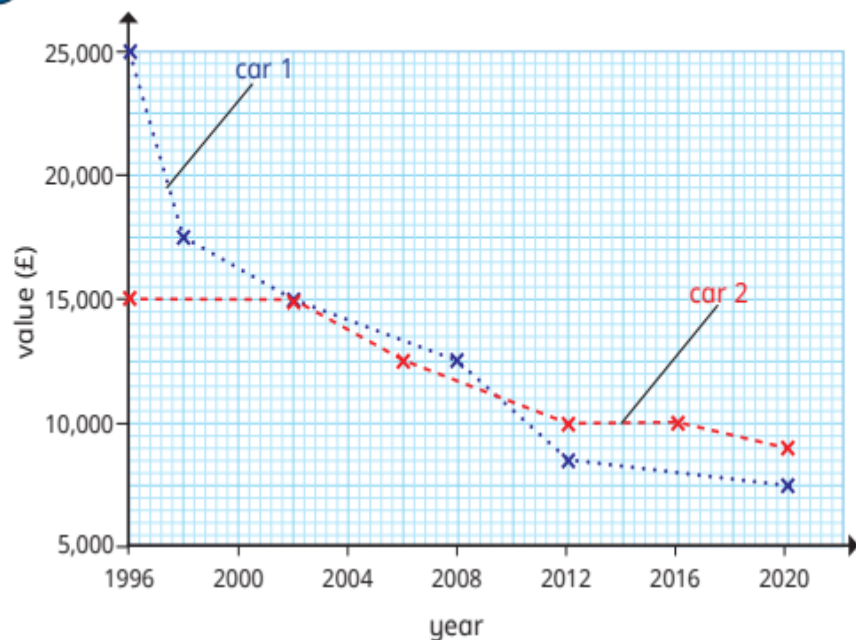
2



b) In which two years was the difference in the recorded values of the two cars the same? _____

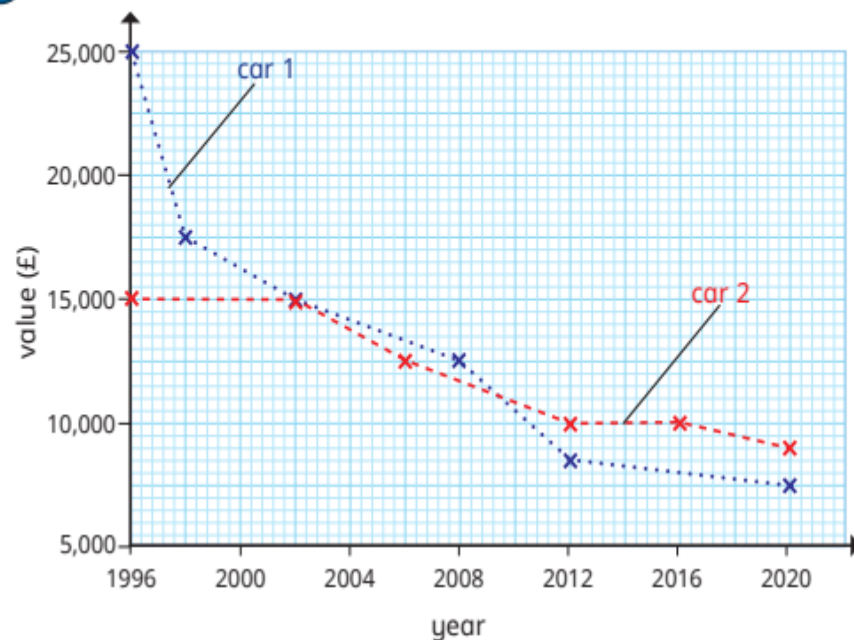
c) Which car's value decreased more between 1996 and 2020? _____

- 2 The graph shows the values of two cars over time.



- a) In which year was the recorded value of the cars the same?
- b) In which two years was the difference in the recorded values of the two cars the same?
- c) Which car's value decreased more between 1996 and 2020?
- d) For approximately how many years was the value of car 2 greater than the value of car 1?

- 2 The graph shows the values of two cars over time.



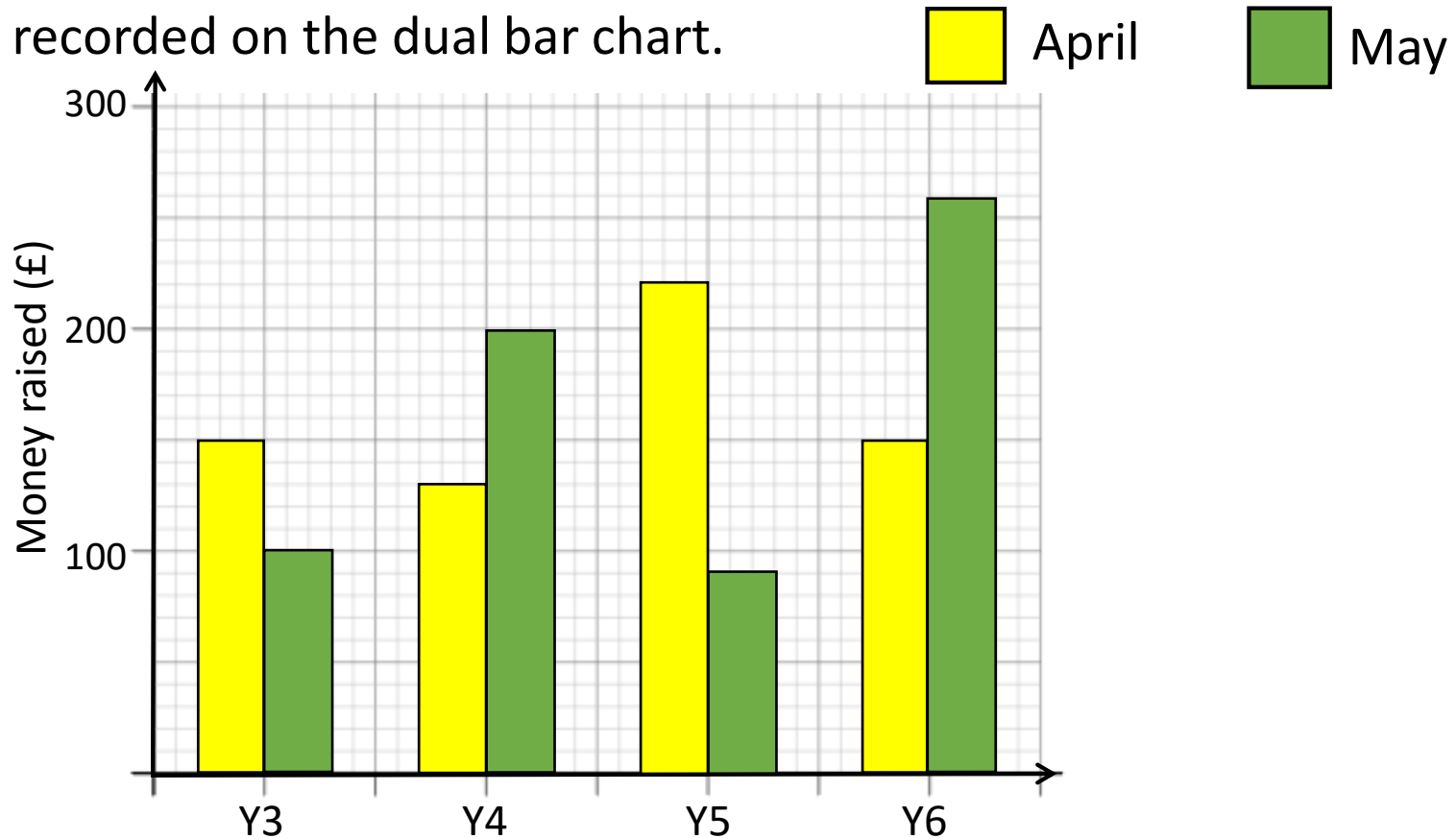
- a) In which year was the recorded value of the cars the same?
- b) In which two years was the difference in the recorded values of the two cars the same?
- c) Which car's value decreased more between 1996 and 2020?
- d) For approximately how many years was the value of car 2 greater than the value of car 1?

Mon Hex/ Oct

1	a) 4 °C b) 2 °C c) 3 °C d) 3 °C
2	a) 2002 b) 2012 and 2020 c) car 1 d) approximately 10 years e) No The value of car 2 decreased from £15,000 to £10,000, and half of £15,000 is £7,500 The vertical scale does not start from zero.

Years 3 to 6 are raising money for charity.

The amount each year group raised in April and May is recorded on the dual bar chart.



What do you know?

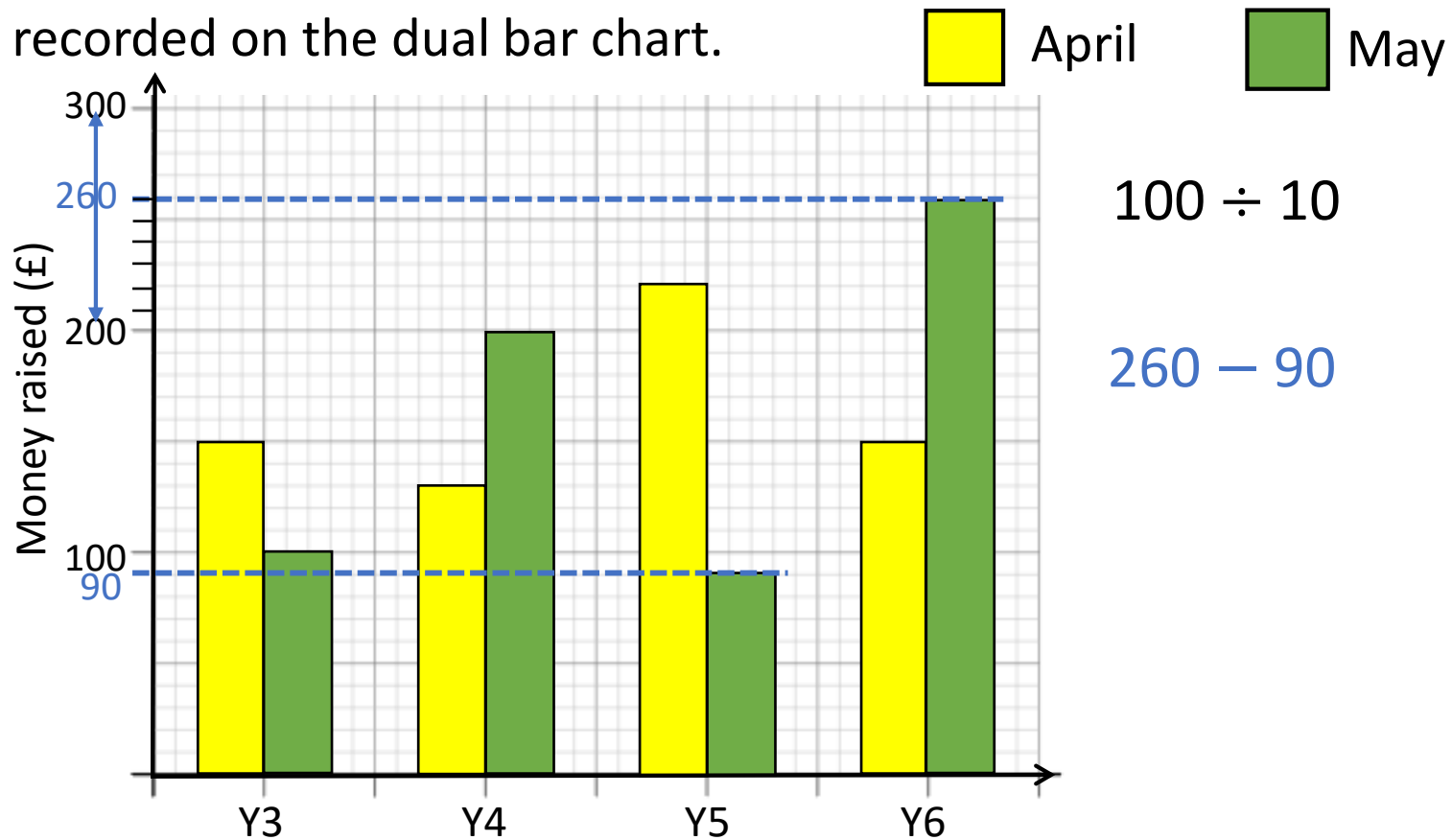
What can you find out?

Have a think



Years 3 to 6 are raising money for charity.

The amount each year group raised in April and May is recorded on the dual bar chart.



Estimate how much more money

Year 6 raised in May than Year 5 £170

Have a think



Mon- Maths meeting

Roman Numerals

What can you remember ?! Jot down on your whiteboard and compare with your neighbour!

1 **I**

6 **VI**

10 **X**

2 **II**

7 **VII**

50 **L**

3 **III**

8 **VIII**

100 **C**

4 **IV**

9 **IX**

500 **D**

5 **V**

10 **X**

1000 **M**

6

Here are some numbers written in Roman numerals.

[New]

In each box, circle the number that is **greater**.

One has been done for you.

XIV

XVI

XIV

XIX

CIX

LXV

XCI

XLIX

[1 mark]

14

[New]

The table shows some years written in figures and in Roman numerals.

Complete the table.

figures	Roman numerals
2018	MMXVIII
2007	
	MMCXXXV
1999	

[2 marks]

6

Here are some numbers written in Roman numerals.

[New]

In each box, circle the number that is **greater**.

One has been done for you.

XIV

XVI

XIV

[14]

XIX

[19]

CIX

[109]

LXV

[65]

XCI

[91]

XLIX

[49]

14

[New]

The table shows some years written in figures and in Roman numerals.

Complete the table.

figures	Roman numerals
2018	MMXVIII
2007	MMVII
2135	MMCXXXV
1999	<u>M</u> <u>CM</u> <u>XC</u> <u>IX</u>

1900 90 9

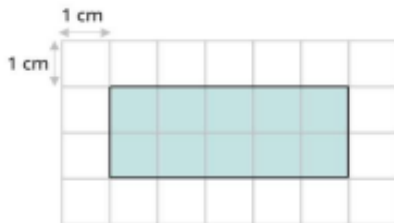
Tues Starter task - Volume – missing lengths

Area, perimeter and volume

A

Name _____

- 1 A rectangle is drawn on a centimetre grid.



What is the area of the rectangle?

_____ cm²

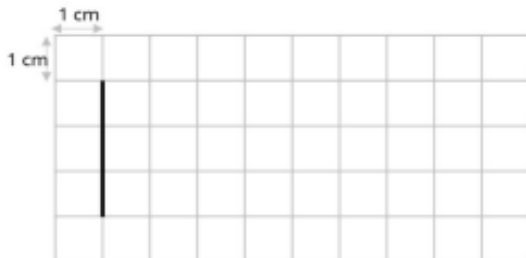
☐ 1 mark

What is the perimeter of the rectangle?

_____ cm

☐ 1 mark

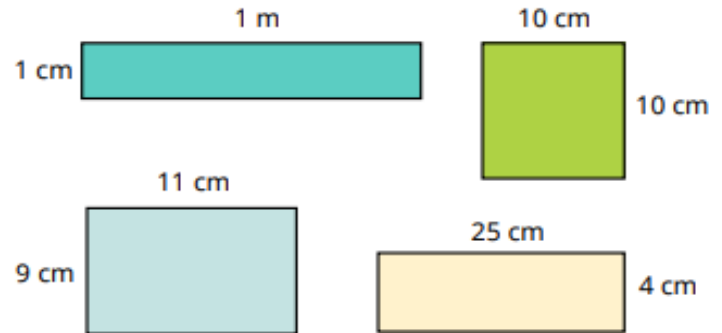
- 2 The perimeter of a rectangle is 18 cm. One of the sides is shown.



Complete the rectangle.

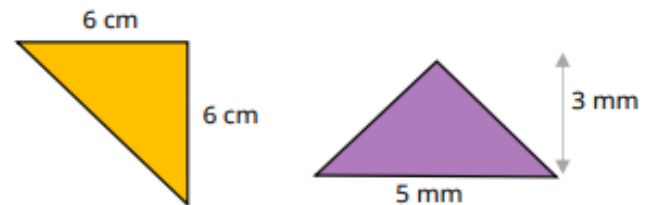
☐ 2 marks

- 3 Circle the shapes that have an area of 100 cm².



☐ 2 marks

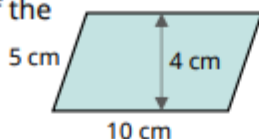
- 4 Work out the area of each triangle. Remember to write the units with your answer.



☐ 3 marks

Tues

- 5 Max says that the area of the parallelogram is 50 cm^2 .



What mistake has Max made?

What is the correct area of the parallelogram?

_____ cm^2

1 mark

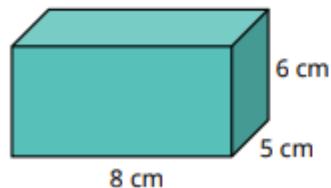
- 6 Rectangles that have the same area have the same perimeter.



Is Teddy correct? Explain your answer.

2 marks

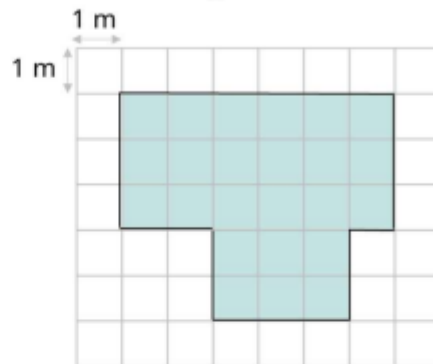
- 7 What is the volume of the cuboid?



_____ cm^3

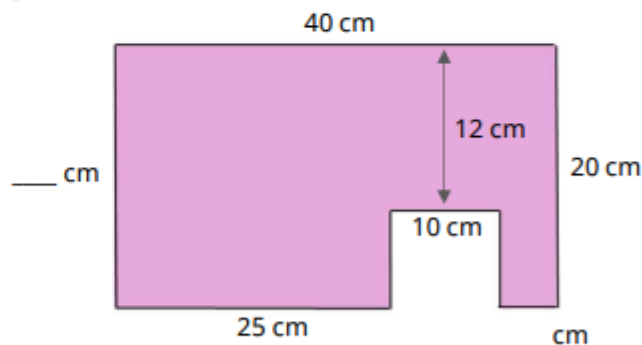
2 marks

- 8 Here is a plan of Mr Rose's garden. Mr Rose wants to build a fence around his garden. What is the length of fence needed?



2 marks

- 9 Calculate the missing lengths.



2 marks

What is the area of the shape?

2 marks

White
Rose
Maths

Area, perimeter and volume

A

Name _____

- 1 A rectangle is drawn on a centimetre grid.



What is the area of the rectangle?

10 cm²



1 mark

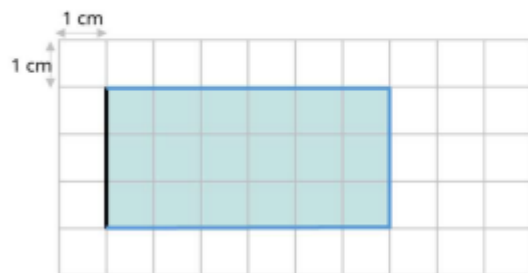
What is the perimeter of the rectangle?

14 cm



1 mark

- 2 The perimeter of a rectangle is 18 cm. One of the sides is shown.

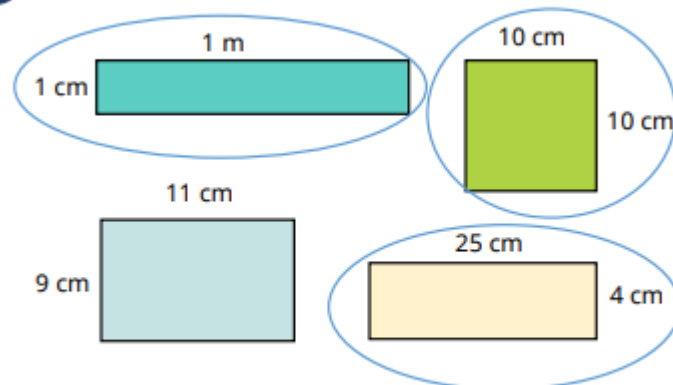


Complete the rectangle.



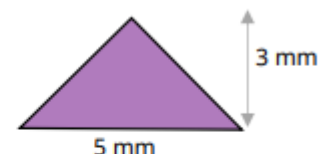
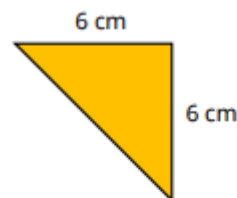
2 marks

- 3 Circle the shapes that have an area of 100 cm².



1 mark for 2 correct.

- 4 Work out the area of each triangle. Remember to write the units with your answer.



18 cm²

7.5 mm²

1 mark for each correct area and 1 mark for including both units of measurement.



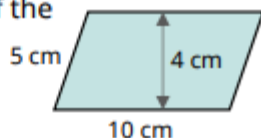
2 marks



3 marks



- 5 Max says that the area of the parallelogram is 50 cm^2 .



What mistake has Max made?

He has used 5 cm as the perpendicular height.

What is the correct area of the parallelogram?

40 cm^2



1 mark

- 6 Rectangles that have the same area have the same perimeter.



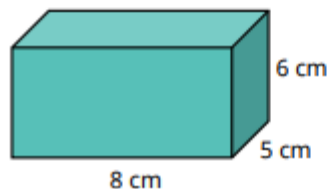
Is Teddy correct? Explain your answer.

No, e.g. a 5 cm by 6 cm rectangle and a 3 cm by 10 cm rectangle both have an area of 30 cm^2 but have a perimeter of 22 cm and 26 cm.



2 marks

- 7 What is the volume of the cuboid?



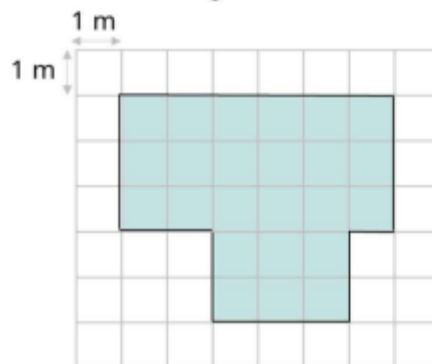
1 mark for the correct method with 1 error.

240 cm^3



2 marks

- 8 Here is a plan of Mr Rose's garden. Mr Rose wants to build a fence around his garden. What is the length of fence needed?



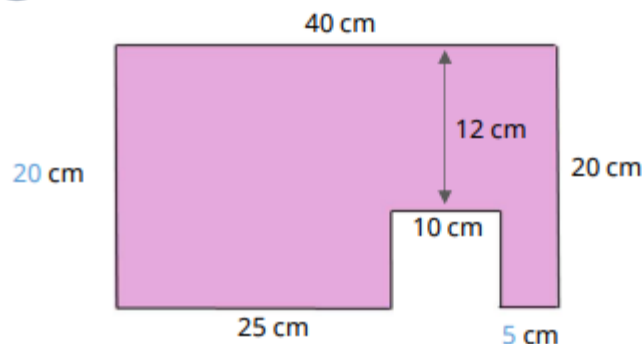
1 mark for attempting to add the length of each side with one arithmetic error.

22 m



2 marks

- 9 Calculate the missing lengths.



What is the area of the shape?

2 marks for the correct answer.
1 mark for calculating $20 \times 40 = 800$ and $10 \times 8 = 80$

720 cm^2



2 marks



2 marks

White
Rose
Maths

Maths

Tues 18.4.23

LO: To read and interpret pie charts

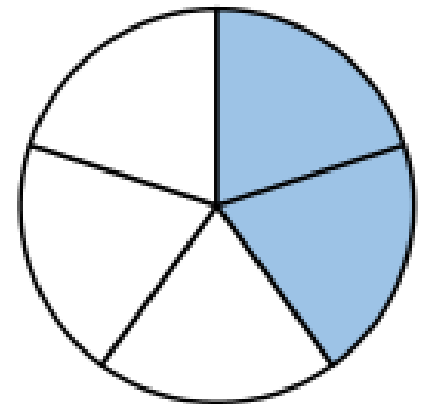
1) Calculate $\frac{3}{8}$ of 56

2) There are 30 children in Year 6
 $\frac{3}{5}$ of them wear glasses.

How many children in Year 6 **do not** wear glasses?

3) What fraction of the circle is shaded?

What fraction is not shaded?



1) Calculate $\frac{3}{8}$ of 56 = 21

$$56 \div 8 = 7 \quad 7 \times 3$$

2) There are 30 children in Year 6

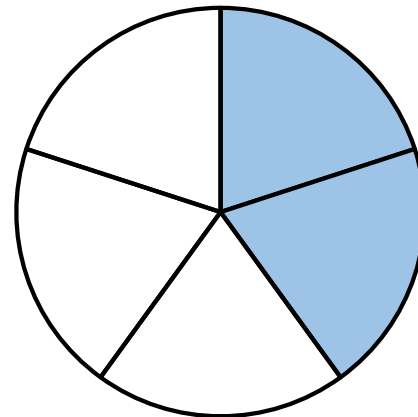
$\frac{3}{5}$ of them wear glasses.

How many children in Year 6 **do not** wear glasses? 12

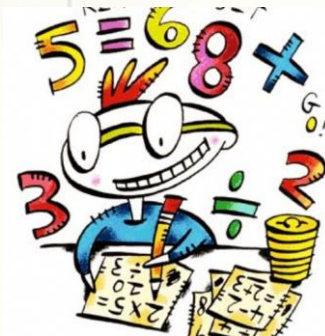
$$\frac{2}{5} \text{ of } 30 \quad 30 \div 5 = 6$$

3) What fraction of the circle is shaded? $\frac{2}{5}$

What fraction is not shaded? $\frac{3}{5}$



Maths Three Repeating Golden Threads



Mastery

Pupils acquire a deep, long-term, secure adaptable understanding

Fluency



Quick and efficient recall of facts and procedures

Application

The use of maths everyday in the real world, outside the classroom.



Key Vocabulary

data



interpret



key



tally chart

pictogram

block diagram

table

total

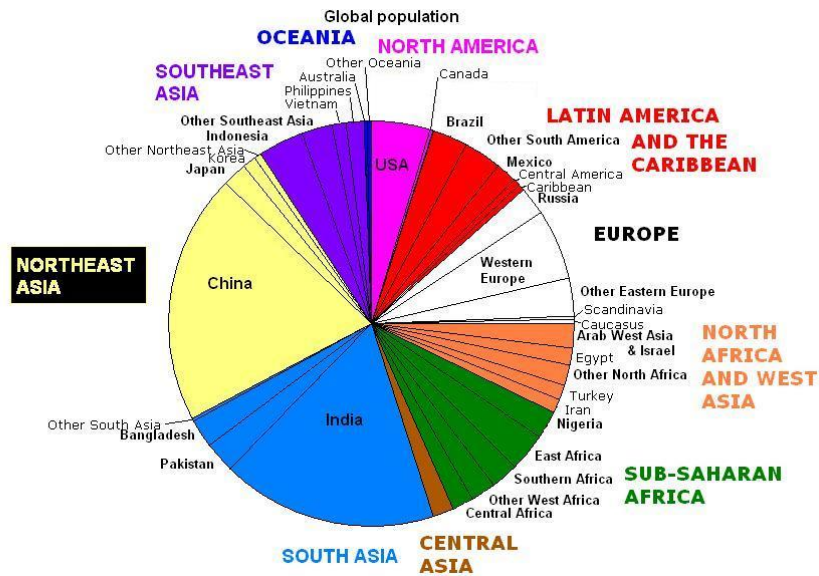
compare



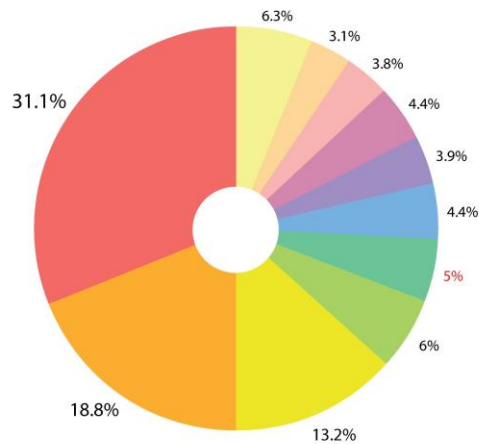
symbol

Crucial Vocab

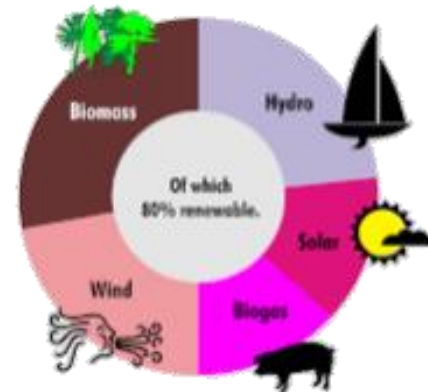
Pie chart



United Kingdom 2016-17 Government Expenditure



Expenditure figures taken from page 5, *Budget 2016*. 16 March 2016, HM Govt

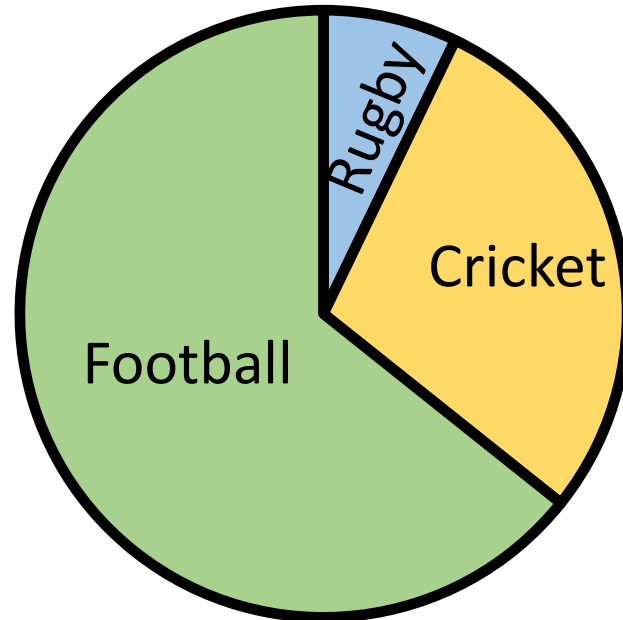


- Social Protection - £240bn
- Health - £145bn
- Education - £102bn
- Defence - £46bn
- Government Debt Interest - £39bn
- Public Order and Safety - £34bn
- Personal Social Services - £30bn
- Housing and Environment - £34bn
- Transport - £29bn
- Industry, agriculture and employment - £24bn
- Other (includes EU contributions) - £49bn

Total 2016-17 Government Expenditure: £772 billion

Some children were asked to name their favourite sport.

The results are shown in the pie chart.



Write **more** or **less** to complete the sentences.

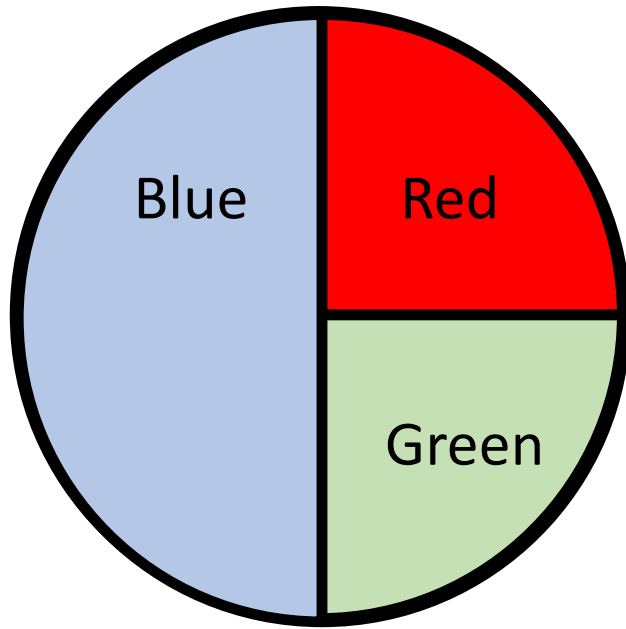
Less than half of the class have cricket as their favourite sport.

More than a quarter of the class have football as their favourite sport.

Have a think



Favourite colours



What fraction is red? $\frac{1}{4}$

What fraction is green? $\frac{1}{4}$

What fraction is blue? $\frac{2}{4}$ or $\frac{1}{2}$

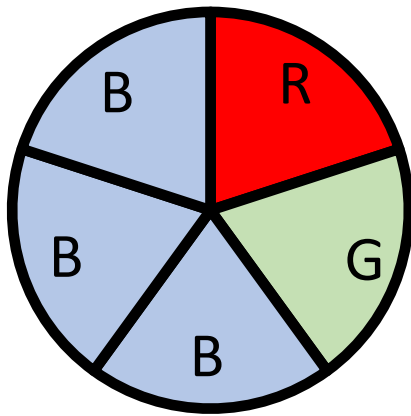
Have a think



Two times as many prefer blue compared to red.

Half as many prefer green as they do blue.

Have a think

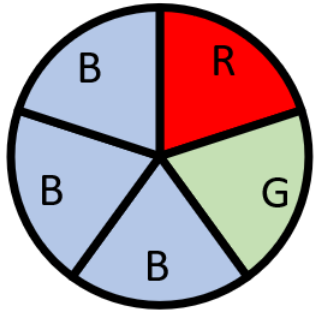


Red	Green	Blue
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{3}{5}$

Three times as many prefer blue compared to green.

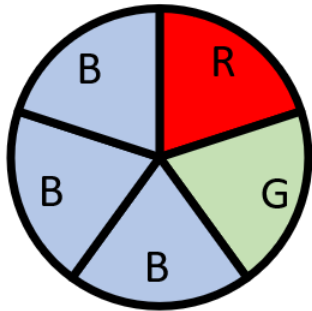


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Red	Green	Blue

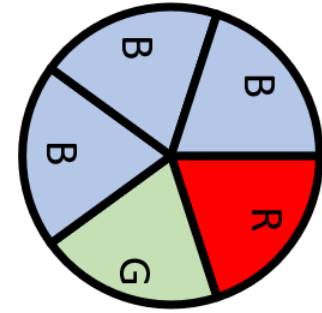
_____ times as many prefer blue compared to green.



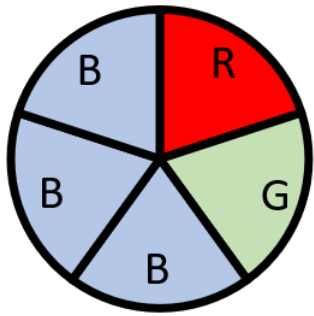
Red	Green	Blue

_____ times as many prefer blue compared to green.

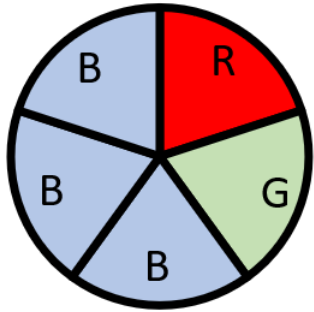
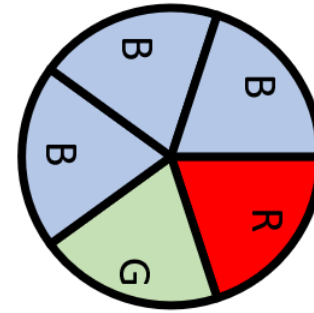
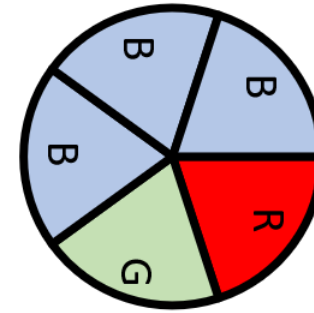
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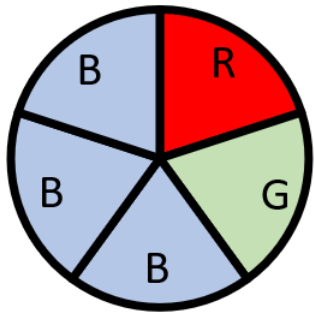
Red	Green	Blue



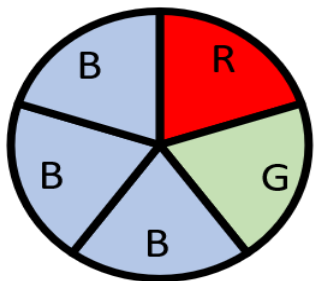
Red	Green	Blue



Red	Green	Blue



Red	Green	Blue

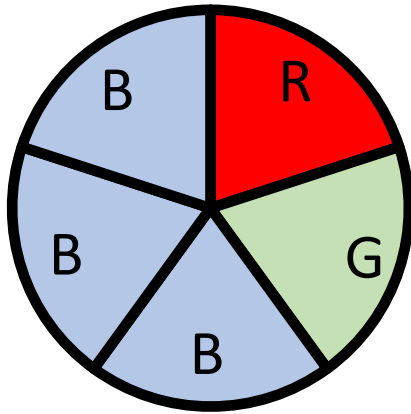


Red	Green	Blue

	Red
	Green
	Blue

	Red
	Green
	Blue

Tues



Red	Green	Blue
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{3}{5}$

How many children prefer blue?

If there were 30 children?

$$\frac{3}{5} \text{ of } 30 = 18$$

Have a think



If there were 60 children?

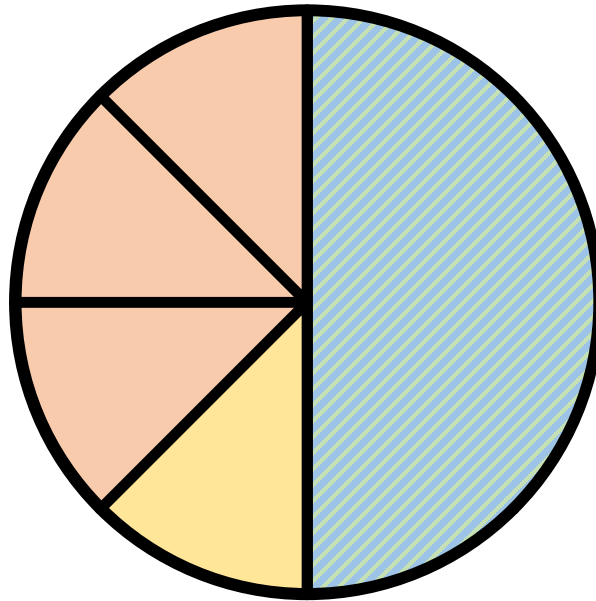
$$\frac{3}{5} \text{ of } 60 = 36$$

If there were 100 children?

$$\frac{3}{5} \text{ of } 100 = 60$$



56 children are attending Tiny's birthday party.
The children were asked what flavour crisps they wanted.



-  Salt and Vinegar
-  Cheese and Onion
-  Roast Chicken
-  Ready Salted

Is there another way?

How many children wanted Salt and Vinegar
or Roast Chicken flavour crisps?

Salt and Vinegar: $\frac{2}{8}$ of 56 = 14

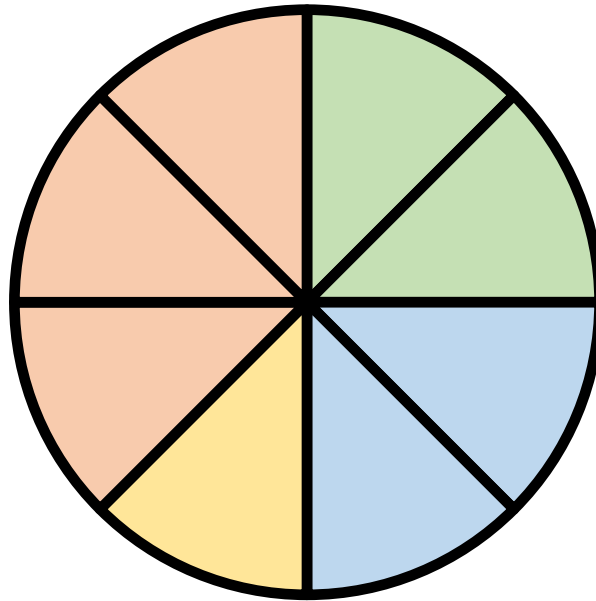
Roast Chicken: $\frac{1}{2}$ of 56 = 28

$14 + 28 = 42$

It's my birthday
today!



56 children are attending Tiny's birthday party.
The children were asked what flavour crisps they wanted.



-  Salt and Vinegar
-  Cheese and Onion
-  Roast Chicken
-  Ready Salted

What fraction did not want Ready Salted flavour?

$\frac{1}{8}$ did want Ready Salted.

$\frac{7}{8}$ did not want Ready Salted.

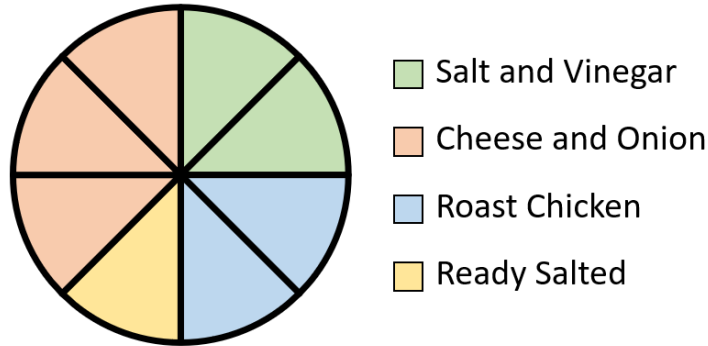
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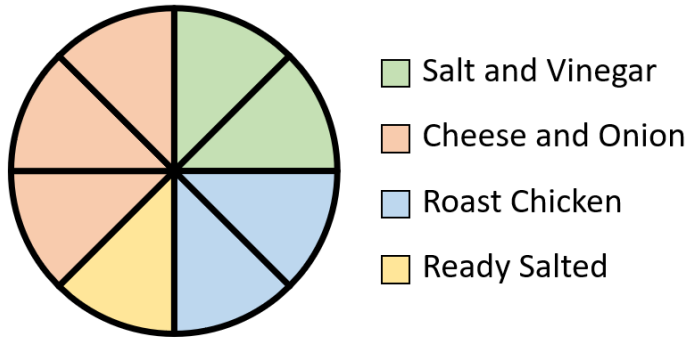
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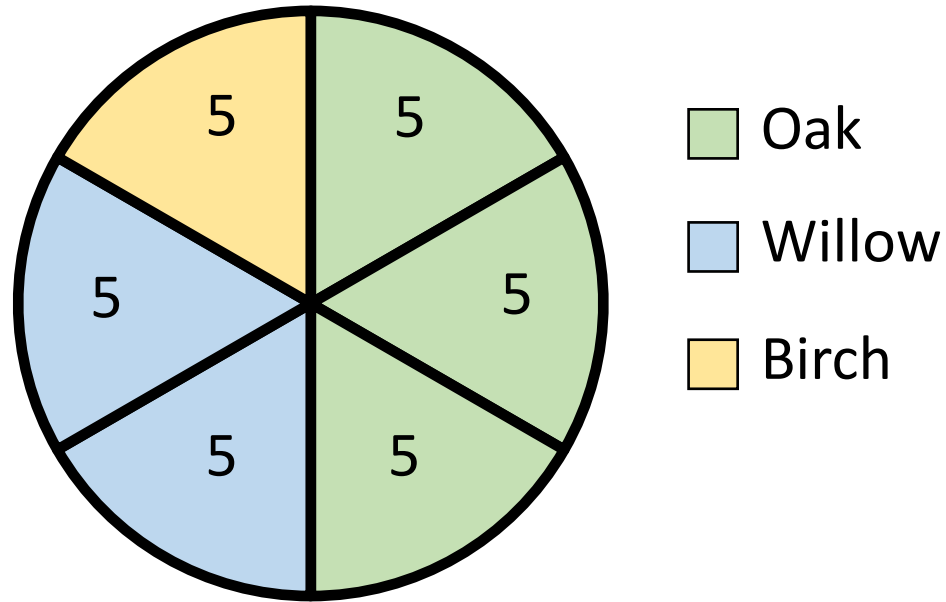


56 children are attending Tiny's birthday party.
The children were asked what flavour crisps they wanted.

56 children are attending Tiny's birthday party.
The children were asked what flavour crisps they wanted.



Types of trees in a field

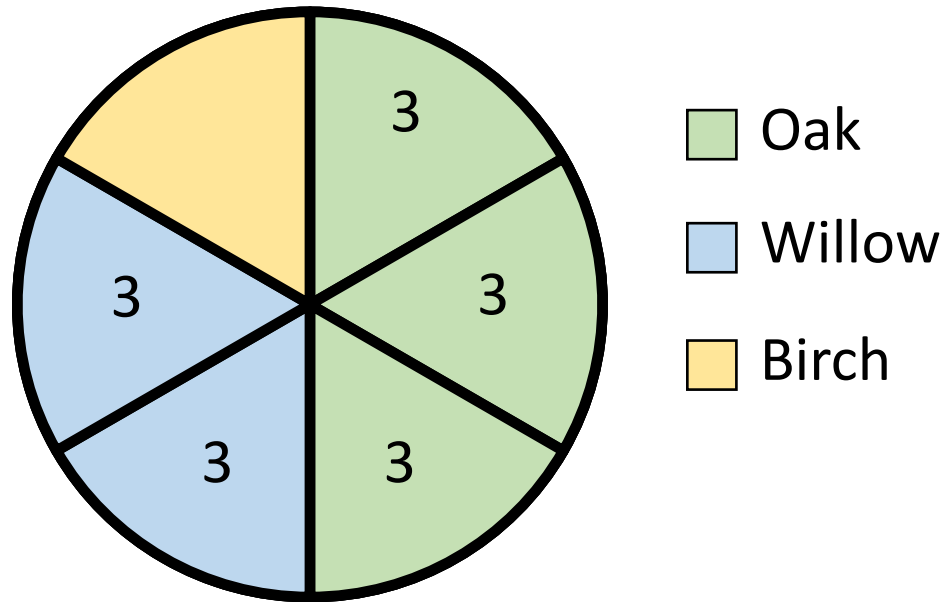


There are 5 birch trees in the field.

How many trees are there altogether?

$$5 \times 6 = 30 \text{ trees altogether}$$

Types of trees in a field



There are 6 willow trees in the field.

How many oak trees are there?

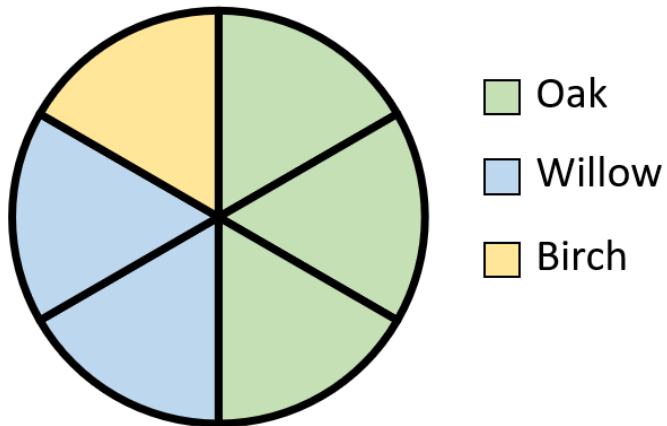
$$6 \div 2 = 3$$

$$3 \times 3 = 9 \text{ oak trees}$$

Have a think



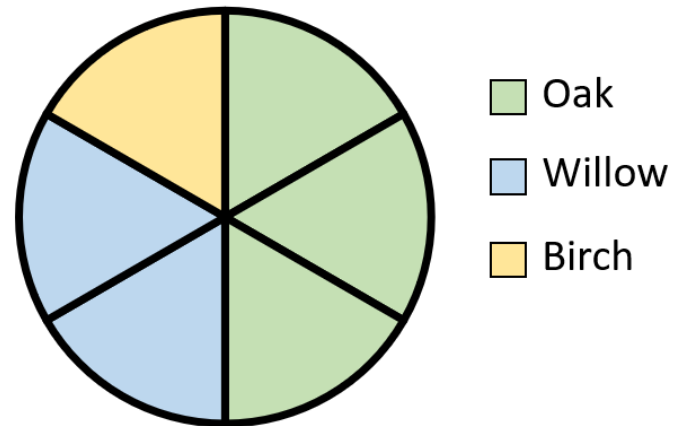
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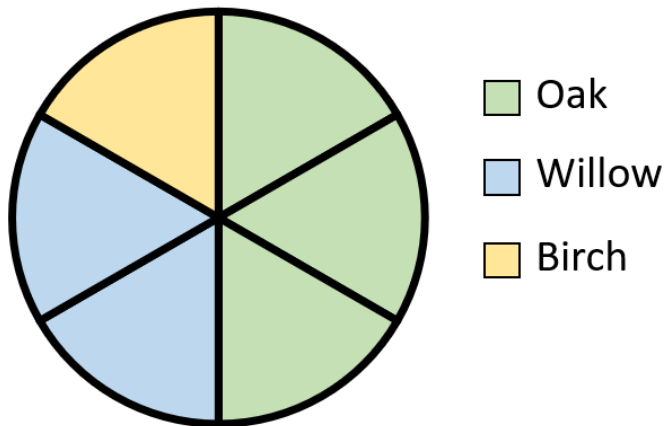
Types of trees in a field



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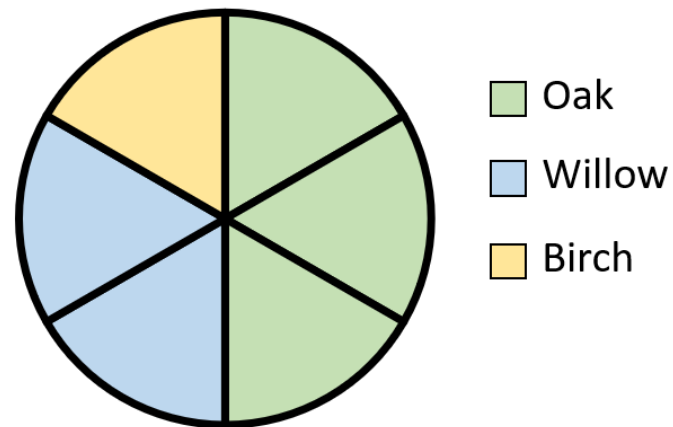
Types of trees in a field



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How many trees are there altogether?

Types of trees in a field

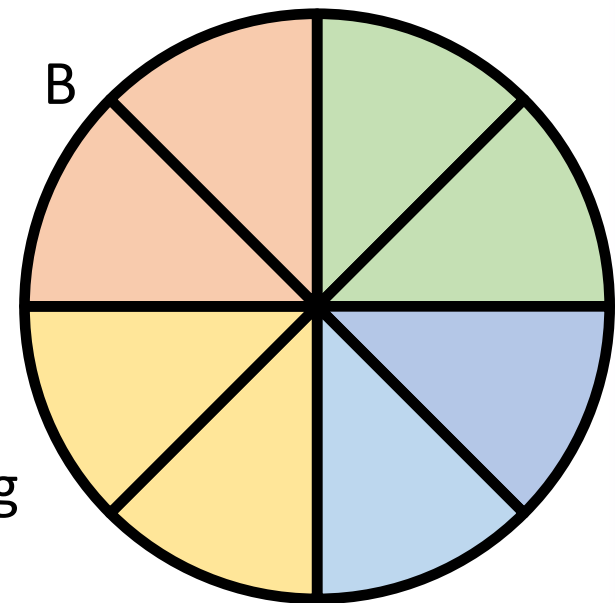
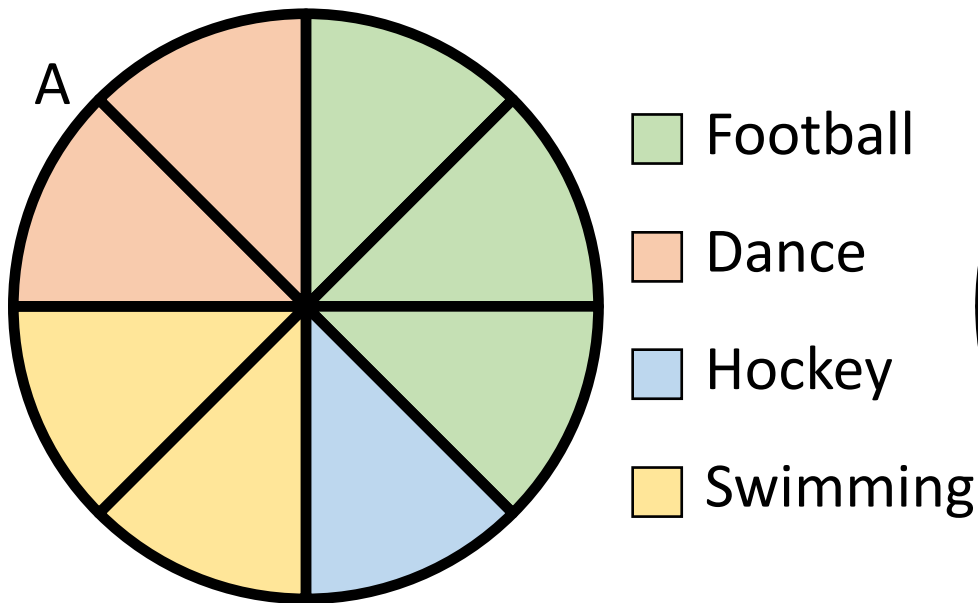


There are 5 birch trees in the field.

How many trees are there altogether?

At school A, 64 children were asked what sports team they would like to join.

At school B, 96 children were asked what sports team they would like to join.



True or False?

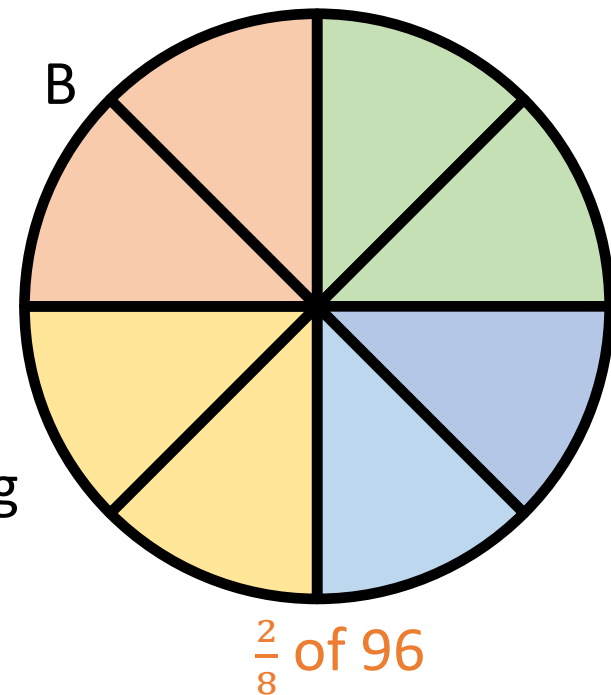
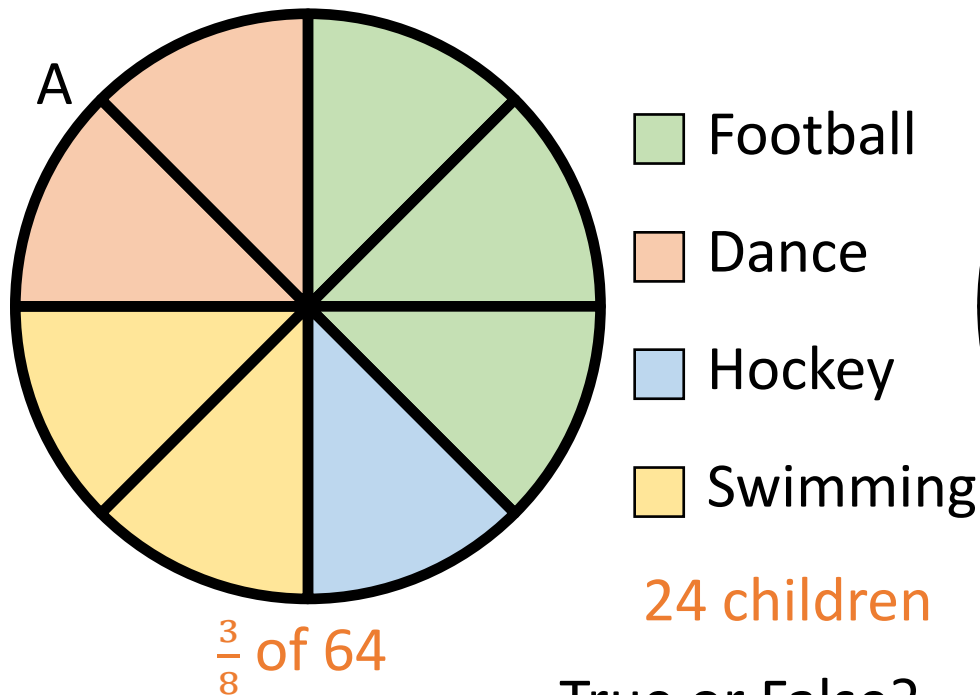
Have a think



More children want to join football at School A than School B.

At school A, 64 children were asked what sports team they would like to join.

At school B, 96 children were asked what sports team they would like to join.



True or False?

More children want to join football at School A than School B

False

Tues- Maths meeting- Times Tables practice

Player 1 rolls the dice and then multiplies the number rolled by the chosen times table. The answer (the product of the two numbers) will correspond to a number on the Bump Board.

For example, $3 \times 2 = 6$. 6 is the product of 3 and 2 so must be found on the Bump Board.

The player must then search the Bump Board to find the product.

Once found, the player can place one of their Minion counters on top of the product.

Player 2 then carries out steps 2, 3 and 4.

If their partner has already covered that number, they can 'bump' their partner's Minion counter off the board and take the space. The Minion counter that is bumped off is given back to the player and they have another chance of placing the counter during their next turn.

The player that places all 10 of their counters first is the winner.



Bump Board

ILLUMINATION PRESENTS
minions
THE RISE OF GRU

104	17	6	130	16	36	58	59	53	91	143	92	102	110	42	66
125	69	71	4	23	20	95	55	1	111	116	41	30	73	31	44
46	27	117	33	51	22	127	103	135	28	131	134	56	109	84	79
82	7	112	26	37	3	57	50	54	34	89	21	14	29	106	78
10	105	47	121	107	141	62	87	81	113	5	49	25	94	72	101
98	32	100	108	70	129	123	83	80	137	45	139	96	48	68	75
86	63	138	93	9	61	133	122	38	74	140	35	15	76	144	114
65	43	24	118	11	120	18	2	39	77	64	85	124	136	67	12
88	115	19	90	97	132	128	126	60	99	52	142	8	119	40	13



Weds Starter task – Number puzzles

Each missing digit in this calculation is 2, 6 or 7

Write in the missing digits.

You may use each digit more than once.



$$\boxed{}\boxed{} \times \boxed{3} = \boxed{}\boxed{}$$

$$1 \times \boxed{} = 5674$$

$$9 \times \boxed{} = 630$$

Write in the missing numbers.



$$\boxed{} + 85 = 200$$



$$\boxed{} + 12.7 = 63$$

$$120 - 93.2 = \boxed{}$$

15. Use each number card **once** to make the answer to each calculation an **even** number.

5

6

8



$$\begin{array}{ccc} 9 & 12 & 5 \\ + & \div & \times \\ \boxed{} & \boxed{} & \boxed{} \end{array}$$

Weds Starter task – Number puzzles

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$$\begin{array}{ccc} 9 & 12 & 5 \\ + & \div & \times \\ \boxed{} & \boxed{} & \boxed{} \end{array}$$

15. Use **each** number card **once** to make the answer to each calculation an **even** number.

5

6

8

 5 ×

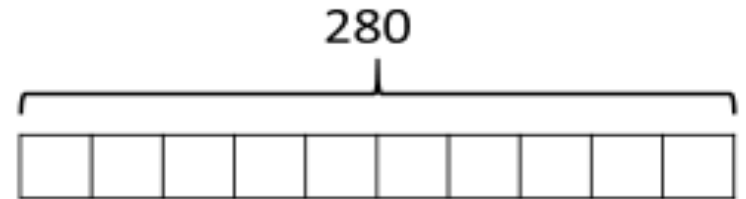
12 ÷

9 +

Weds 19.4.23

LO: To read and interpret pie charts with percentages

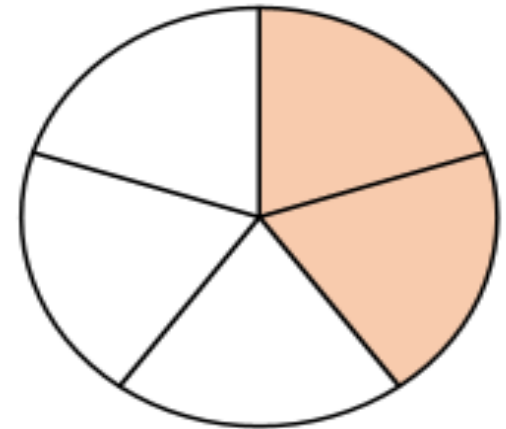
1) 10% of 280 =



2) 30% of 280 =

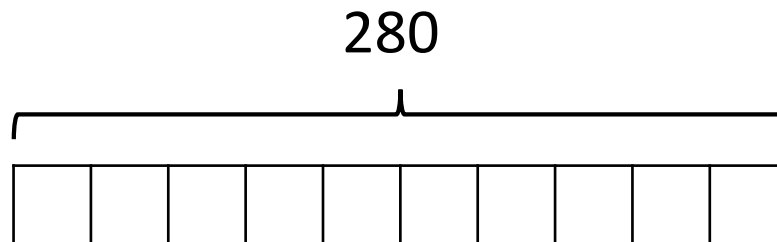
3) What fraction of the circle is shaded?

4) What percentage of the circle is shaded?



Whiteboards

1) 10% of $280 = 28$

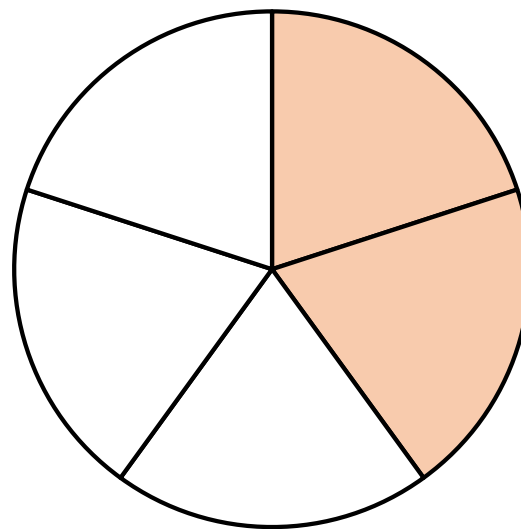


2) 30% of $280 = 84$

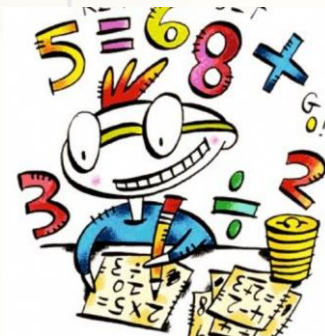
3) What fraction of the circle is shaded? $\frac{2}{5}$

4) What percentage of the circle is shaded? 40%

$100\% \div 5 = 20\%$



Maths Three Repeating Golden Threads



Mastery

Pupils acquire a deep, long-term, secure adaptable understanding

Fluency



Quick and efficient recall of facts and procedures

Application

The use of maths everyday in the real world, outside the classroom.



Key Vocabulary

data



interpret



key



tally chart

pictogram

block diagram

table

total

compare

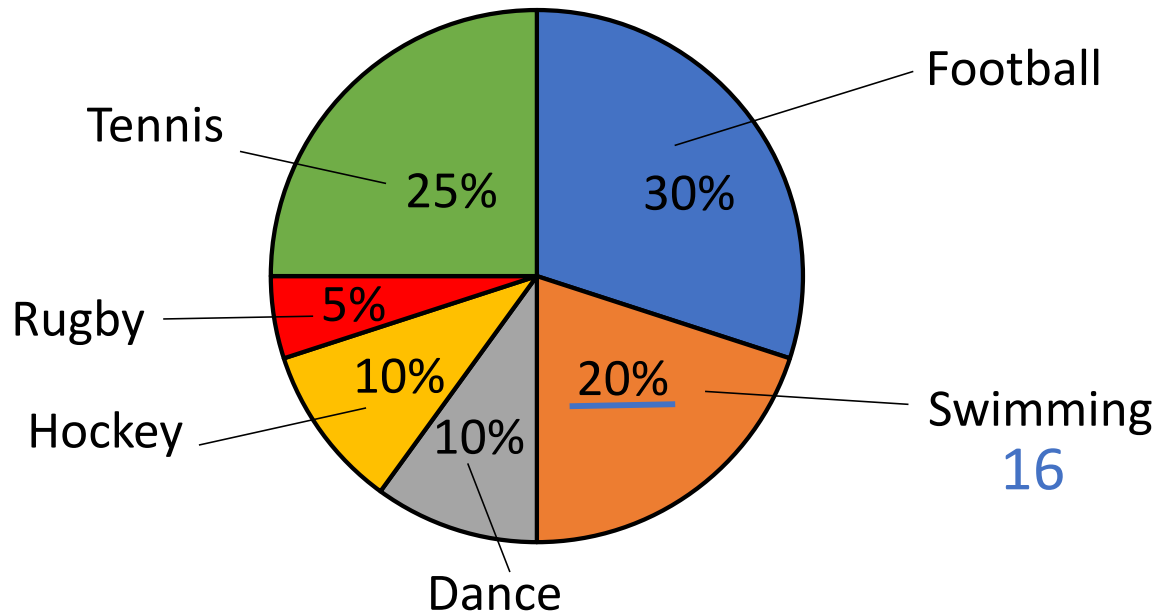


symbol

Crucial Vocab

Pie chart

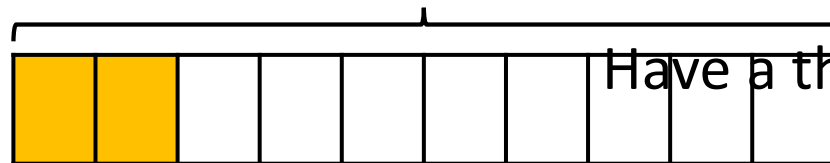
80 children were asked to choose their favourite sport from six options.



Work out how many children chose each sport.
80

$$20\% \text{ of } 80 = 16$$

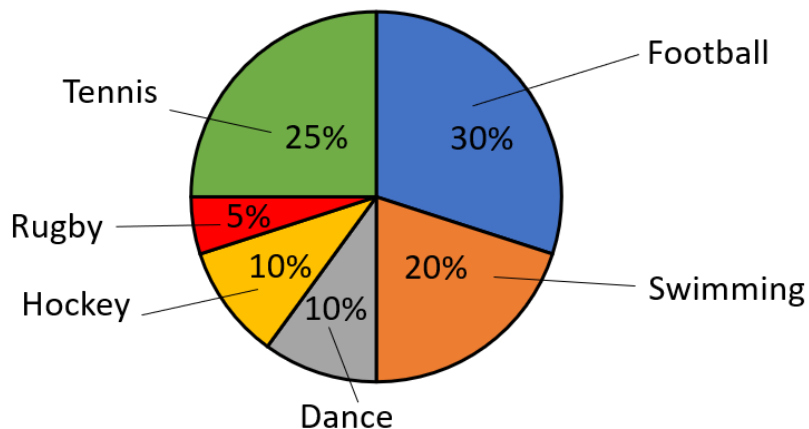
$$10\% \text{ of } 80 = 8$$



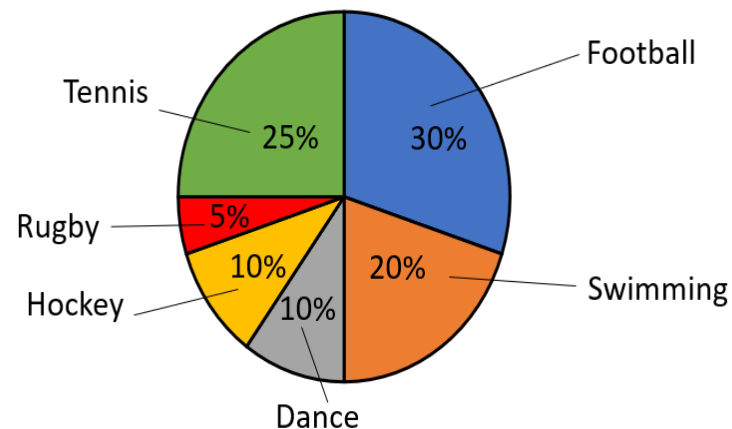
Have a think



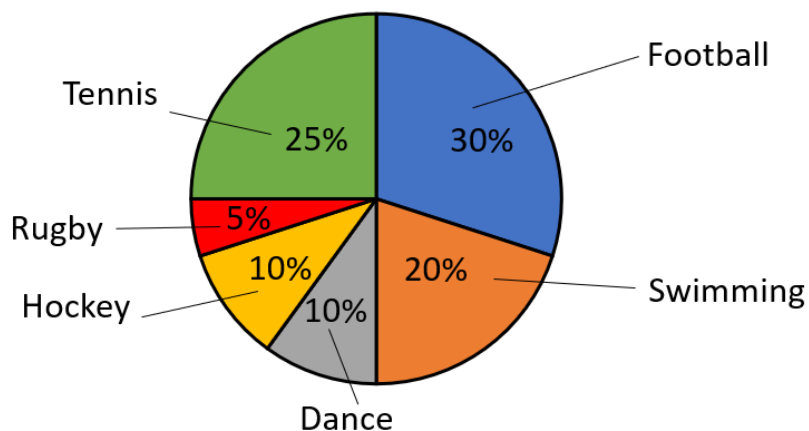
80 children were asked to choose their favourite sport from six options.



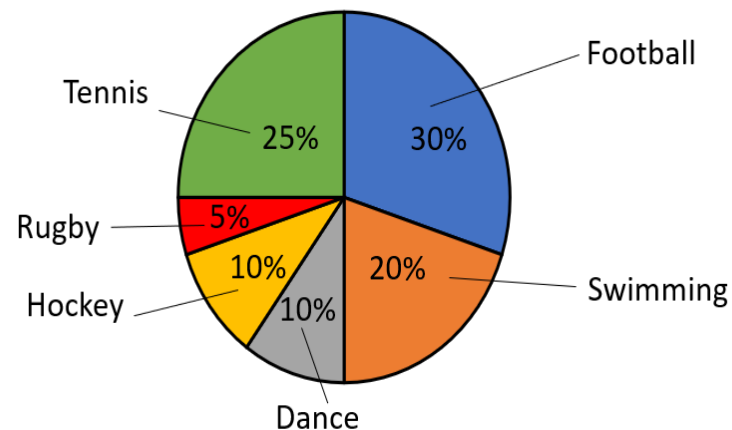
80 children were asked to choose their favourite sport from six options.



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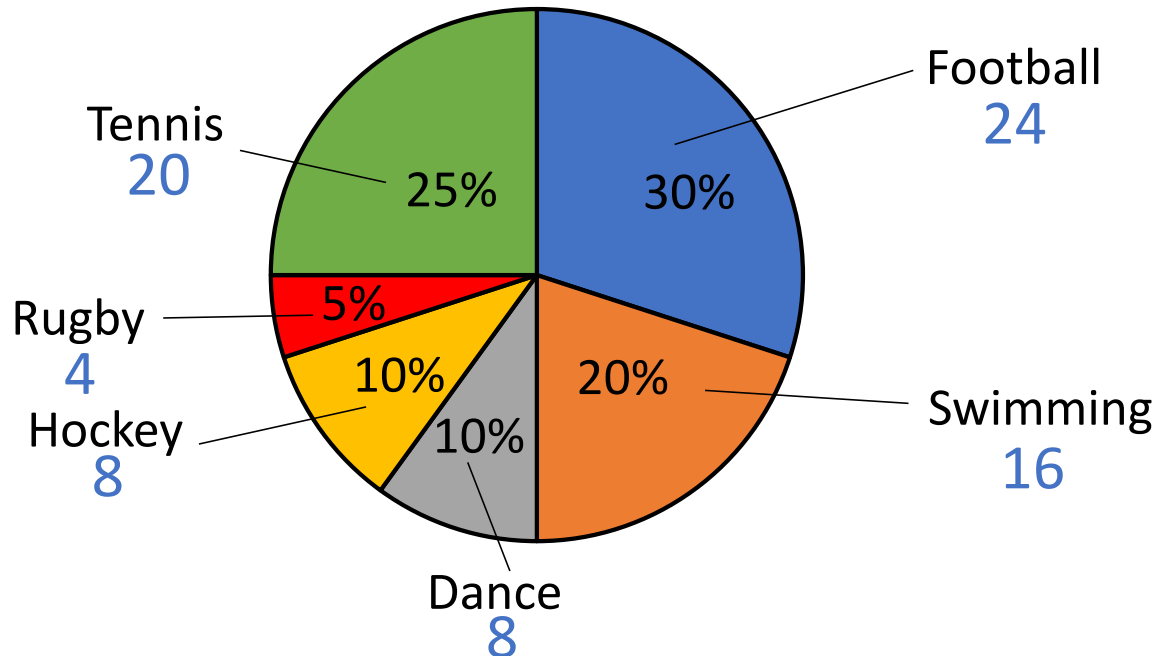


80 children were asked to choose their favourite sport from six options.



Weds

80 children were asked to choose their favourite sport from six options.



Work out the number of children who chose each sport.

$$20\% \text{ of } 80 = 16$$

$$30\% \text{ of } 80 = 24$$

$$25\% \text{ of } 80 = 20$$

$$10\% \text{ of } 80 = 8$$

$$5\% \text{ of } 80 = 4$$

Explain how you know

The pie chart shows children's favourite ice cream flavours.

$$10\% \text{ of } \boxed{} = 40$$

?

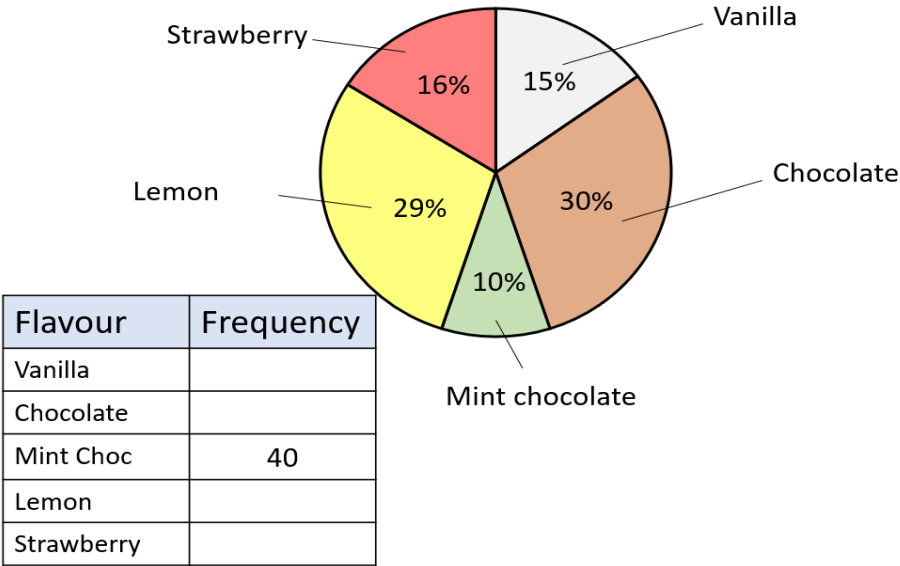


Mint chocolate

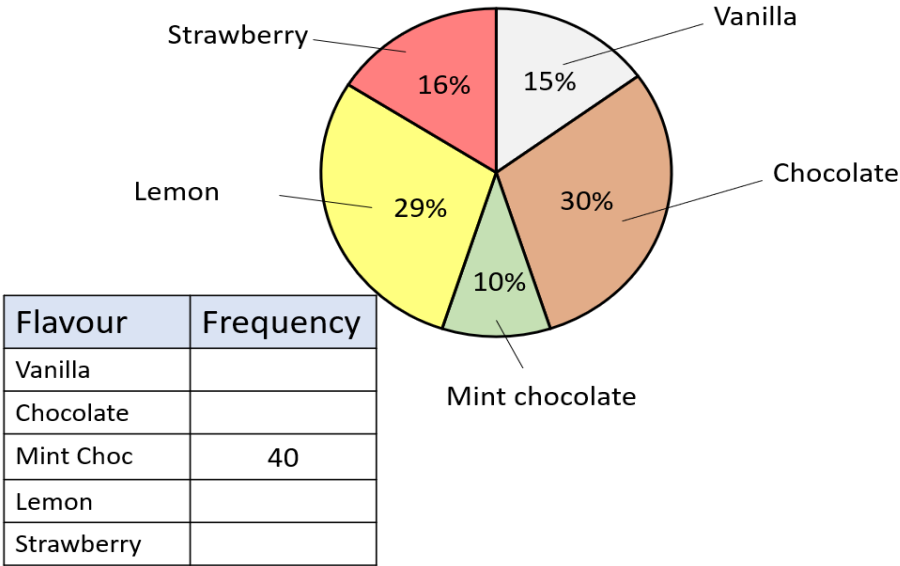
40 children chose mint chocolate. $10\% \text{ of } \underline{\hspace{2cm}} = 40$

How many children took part in the survey? **400**

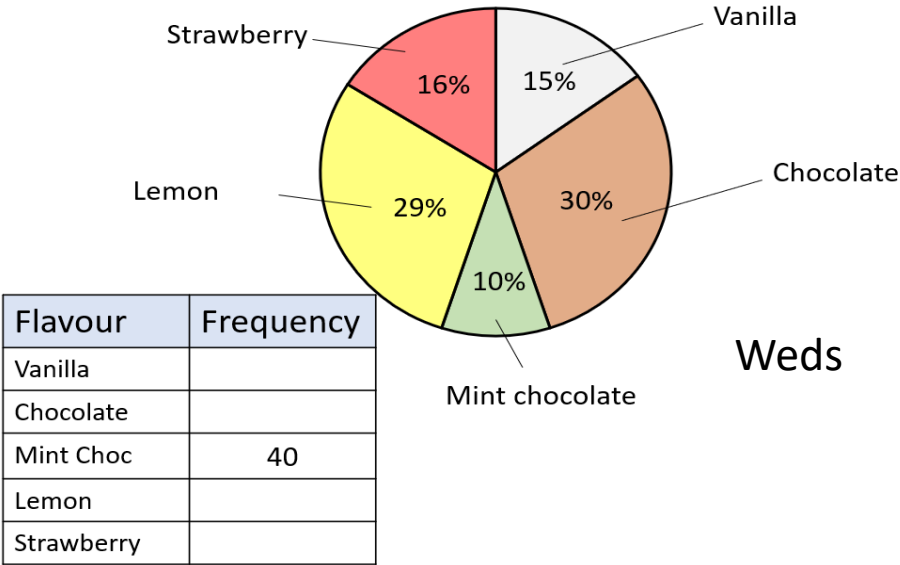
400 children were asked to vote for their favourite ice cream flavours.



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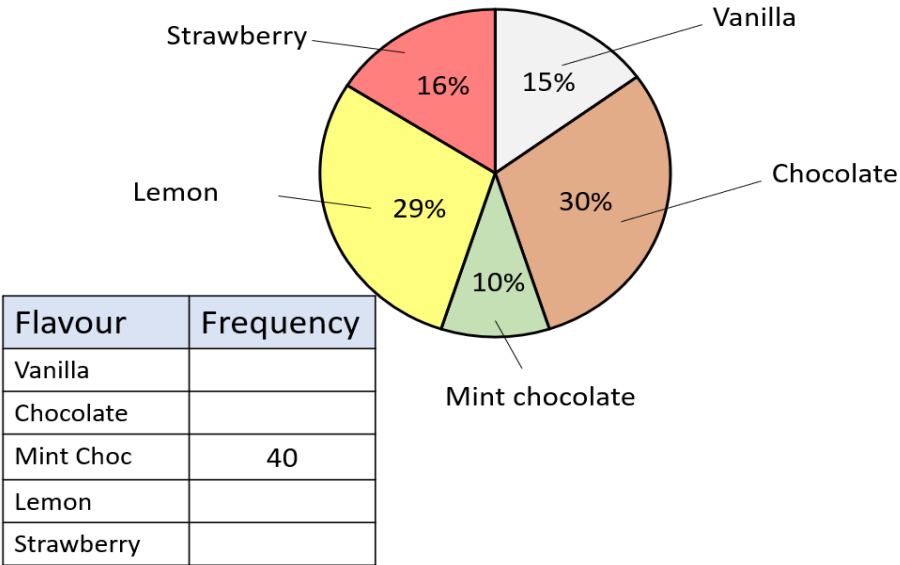


400 children were asked to vote for their favourite ice cream flavours.

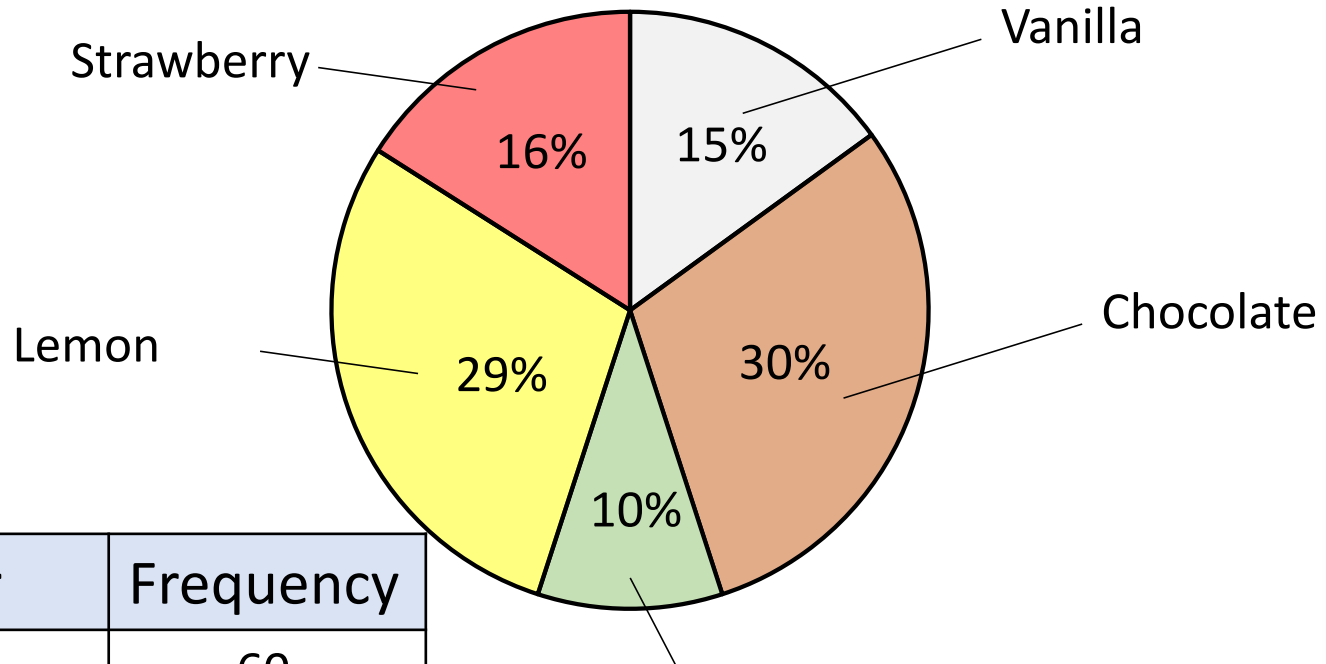


Weds

400 children were asked to vote for their favourite ice cream flavours.



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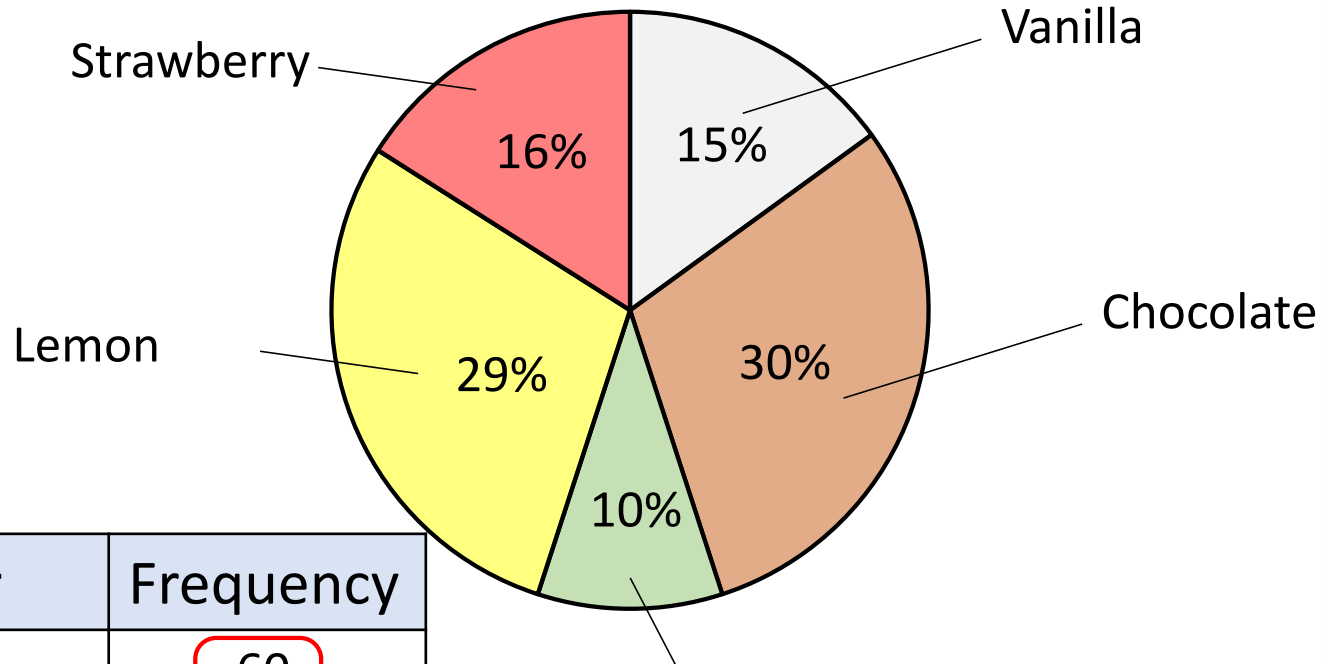


Flavour	Frequency
Vanilla	60
Chocolate	120
Mint Choc	40
Lemon	
Strawberry	

Mint chocolate
 $10\% \text{ of } 400 = 40$
 $30\% \text{ of } 400 = 120$
 $5\% \text{ of } 400 = 20$ ~~10~~ we a think
 $15\% \text{ of } 400 = 60$



400 children were asked to vote for their favourite ice cream flavours.



Flavour	Frequency
Vanilla	60
Chocolate	120
Mint Choc	40
Lemon	116
Strawberry	64

Mint chocolate

$$10\% \text{ of } 400 = 40 \quad 1\% \text{ of } 400 = 4$$

$$30\% \text{ of } 400 = 120$$

$$5\% \text{ of } 400 = 20$$

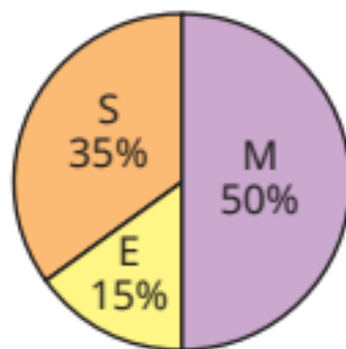
$$15\% \text{ of } 400 = 60$$



120 boys and 100 girls were asked to name their favourite subject.

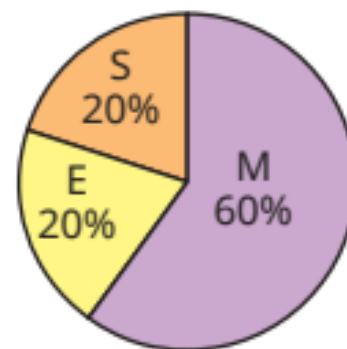
The results are shown in the pie charts.

boys' favourite subjects



■ Maths (M)
■ English (E)
■ Science (S)

girls' favourite subjects



More girls prefer maths than boys, because 60% is greater than 50%.



Do you agree with Tiny?

Explain your answer.

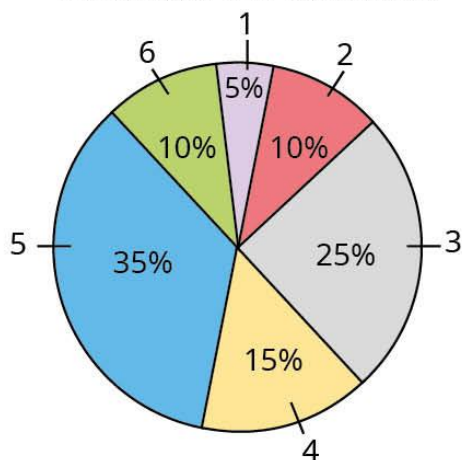




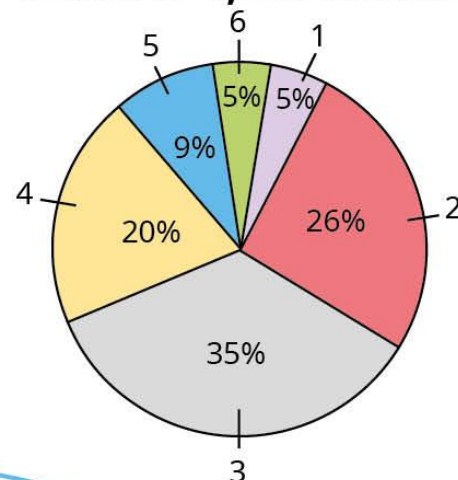
4

The pie charts show the number of bedrooms in the houses in Sollom and Rufford.

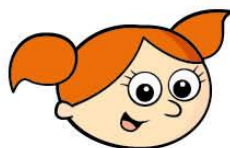
Sollom: 20 houses



Rufford: 1,000 houses



a)



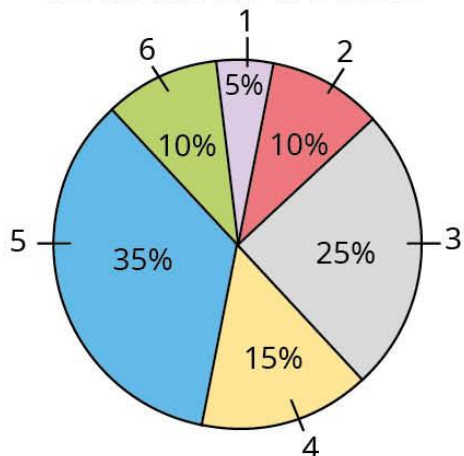
There are twice
as many six-bedroom houses in
Sollom as in Rufford because
10% is double 5%.

Do you agree with Alex? _____

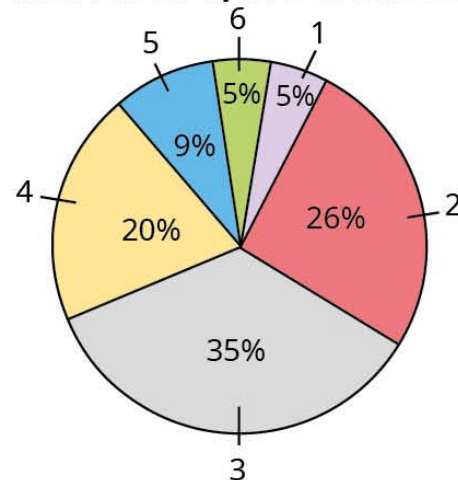
Explain why.

4

Sollom: 20 houses



Rufford: 1,000 houses

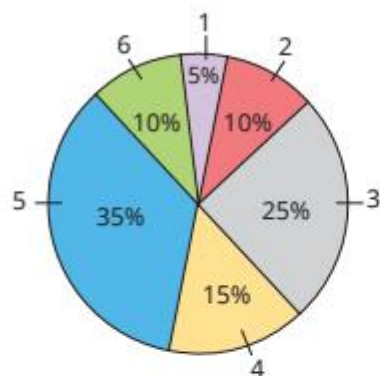


- b)** How many more one-bedroom houses are there in Rufford compared to Sollom?

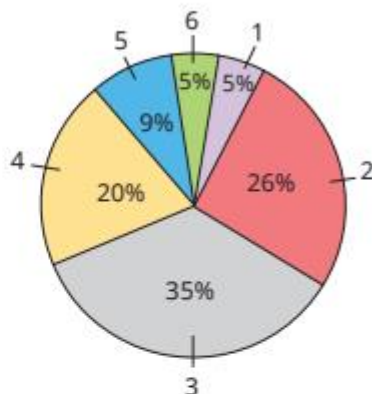
4

The pie charts show the number of bedrooms in the houses in Sollom and Rufford.

Sollom: 20 houses



Rufford: 1,000 houses



a)



There are twice as many six-bedroom houses in Sollom as in Rufford because 10% is double 5%.

Do you agree with Alex?

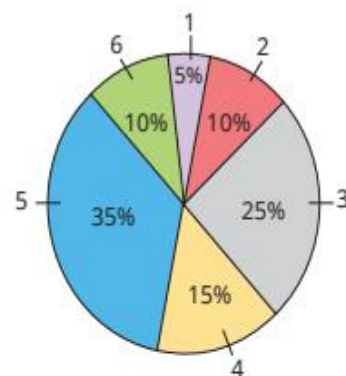
Explain why.

b) How many more one-bedroom houses are there in Rufford compared to Sollom?

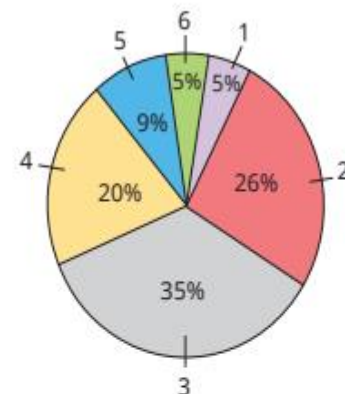
4

The pie charts show the number of bedrooms in the houses in Sollom and Rufford.

Sollom: 20 houses



Rufford: 1,000 houses



a)



There are twice as many six-bedroom houses in Sollom as in Rufford because 10% is double 5%.

Do you agree with Alex?

Explain why.

b) How many more one-bedroom houses are there in Rufford compared to Sollom?

Weds



4

a) No

The totals for the pie charts are different. Sollom has 10% of $20 = 2$ six-bedroom houses. Rufford has 5% of $1,000 = 50$ six-bedroom houses.

b) 49

Weds Maths meeting- revise long mult on board first

Product

<https://www.youtube.com/watch?v=wayoCigl08I>



Tommy gets a pack of 12 football stickers every day for 9 weeks.



Whitney gets a pack of 21 football stickers every day in August.

Who gets the most stickers and by how many?

Have a think



Weds Maths meeting- revise long mult on board first

Long multiplication- pick two numbers
from the Bump board (double digit)
- work with your partner to
multiply.

Check with calculator- if correct pick another
two numbers.

Product

First pair to 3 correct- wins!

<https://www.youtube.com/watch?v=wayoCigl08I>

Bump Board

ILLUMINATION PRESENTS
minions
THE RISE OF GRU

104	17	6	130	16	36	58	59	53	91	143	92	102	110	42	66
125	69	71	4	23	20	95	55	1	111	116	41	30	73	31	44
46	27	117	33	51	22	127	103	135	28	131	134	56	109	84	79
82	7	112	26	37	3	57	50	54	34	89	21	14	29	106	78
10	105	47	121	107	141	62	87	81	113	5	49	25	94	72	101
98	32	100	108	70	129	123	83	80	137	45	139	96	48	68	75
86	63	138	93	9	61	133	122	38	74	140	35	15	76	144	114
65	43	24	118	11	120	18	2	39	77	64	85	124	136	67	12
88	115	19	90	97	132	128	126	60	99	52	142	8	119	40	13



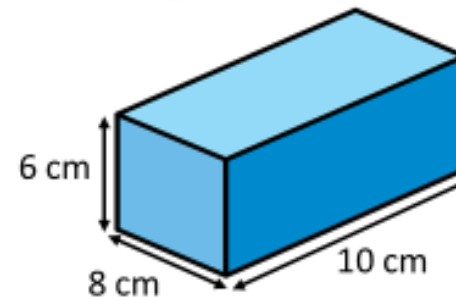
Thurs 20.4.23

LO: To understand averages- mean, median and mode

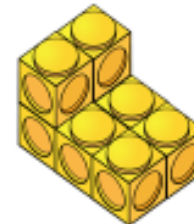
Flashback 4

Year 6 | Week 11 | Day 1

1) Volume = cm³



2) The volume of the structure is _____ yellow cubes.

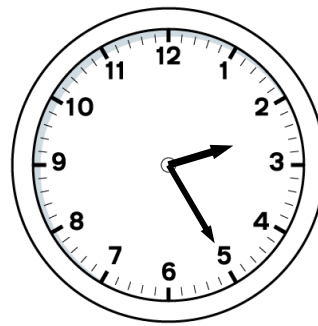
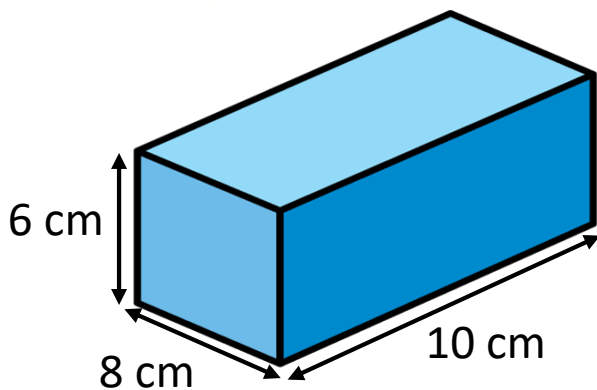


3) 70% of = 245

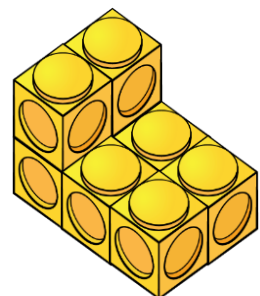
4) Round £483,217 to the nearest £100,000

Books

1) Volume = cm³



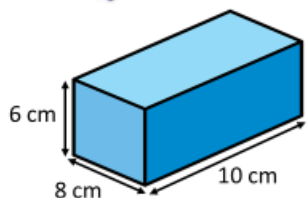
2) The volume of the structure is _____ yellow cubes.



3) 70% of = 245

4) Round £483,217 to the nearest £100,000

1) Volume = cm³



2) The volume of the structure is _____ yellow cubes.

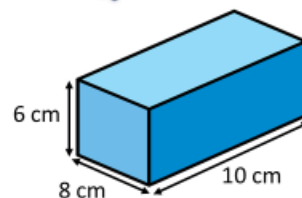


3) 70% of = 245

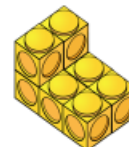
4) Round £483,217 to the nearest £100,000

Thurs

1) Volume = cm³



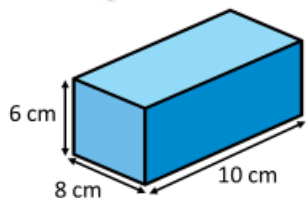
2) The volume of the structure is _____ yellow cubes.



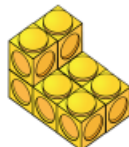
3) 70% of = 245

4) Round £483,217 to the nearest £100,000

1) Volume = cm³



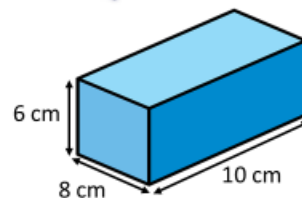
2) The volume of the structure is _____ yellow cubes.



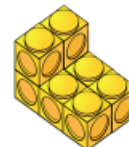
3) 70% of = 245

4) Round £483,217 to the nearest £100,000

1) Volume = cm³



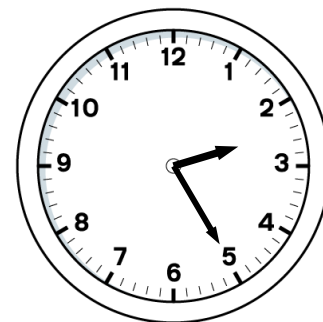
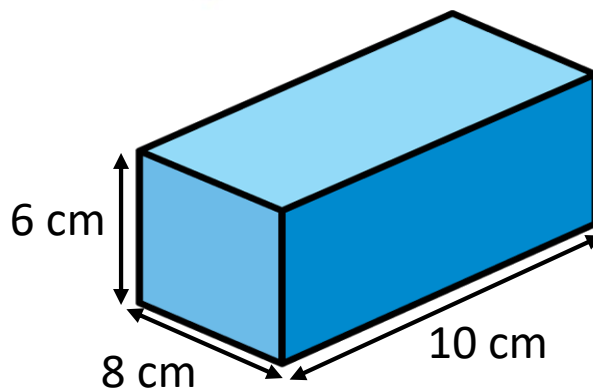
2) The volume of the structure is _____ yellow cubes.



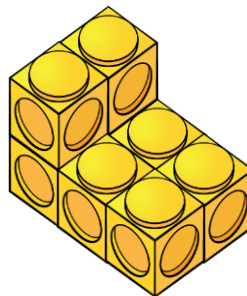
3) 70% of = 245

4) Round £483,217 to the nearest £100,000

1) Volume = 480 cm³



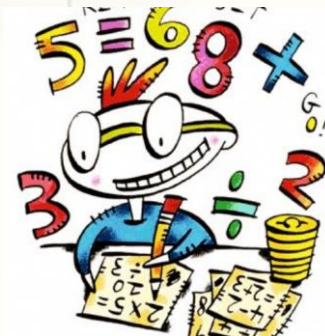
2) The volume of the structure is eight yellow cubes.



3) 70% of 350 = 245

4) Round £483,217 to the nearest £100,000 £500,000

Maths Three Repeating Golden Threads



Mastery

Pupils acquire a deep, long-term, secure adaptable understanding

Fluency



Quick and efficient recall of facts and procedures

Application

The use of maths everyday in the real world, outside the classroom.



Crucial Vocab...

Mode

The mode is the most frequent value.

- Count how many of each value appears
- The mode is the value that appears the most
- You can have more than one mode

2, 2, 5, 6, 7, 8

The mode is

2

Mean

The mean is the average or norm.

- Add up all of the values to find a total
- Divide the total by the number of values you added together.

$$2 + 2 + 5 + 6 + 7 + 8 = 30$$
$$30 \div 6 = 5$$

The mean number is

5

Range

The range is the difference between the lowest and the highest value.

- Find the highest and lowest values
- Subtract the lowest value from the highest

2, 2, 5, 6, 7, 8

$$8 - 2 = 6$$

The range is

6

Median

The median is the middle number.

- Put the numbers in order from the smallest to largest
- Cover up one number on each end until you get to the middle

2, 2, 5, 6, 7, 8, 9

The median is

6

mean
median
mode
average
calculate
range

mean
median
mode
average
calculate
range

mean
median
mode
average
calculate
range

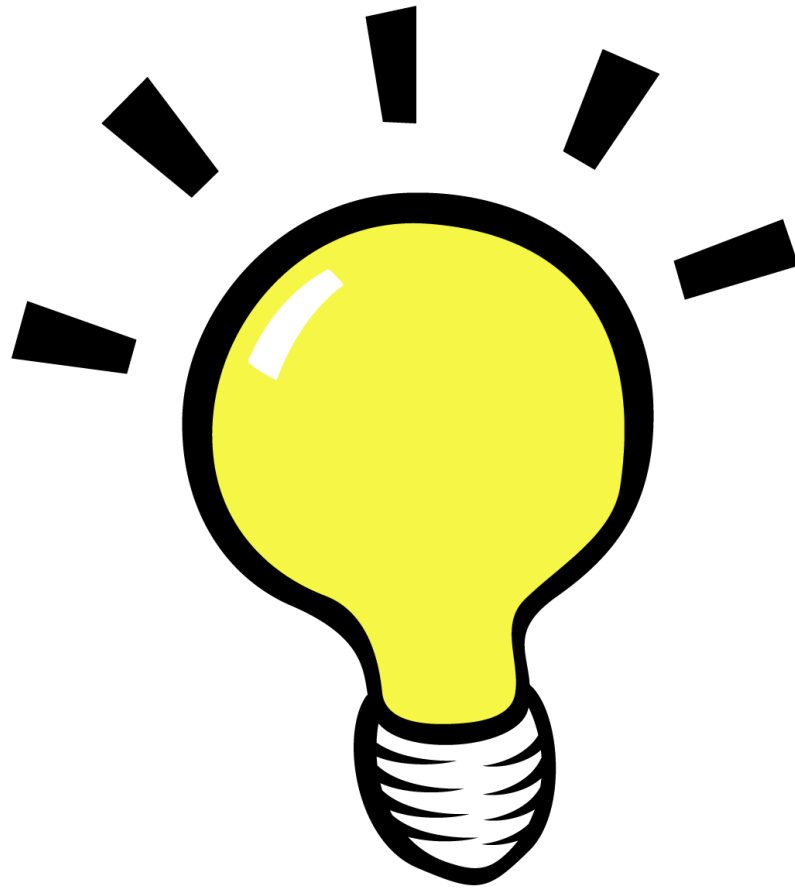
mean
median
mode
average
calculate
range

mean
median
mode
average
calculate
range

mean
median
mode
average
calculate
range

Thurs

What can you remember about mean, median and mode?



Mean

Average found by adding all the numbers in a list and then dividing the total by the amount of numbers.

Example:

a) $4+5+6+7+8+9+10 = 49$

b) $\text{Mean} = 49 \div 7 = 7$

Mode

Number that occurs most often.

Example:

a) 4,5,6,7,7,8,9,10,10,7

b) $\text{Mode} = 7$

Median

The middle number.

Example:

a) 4,5,6,7,8,9,10

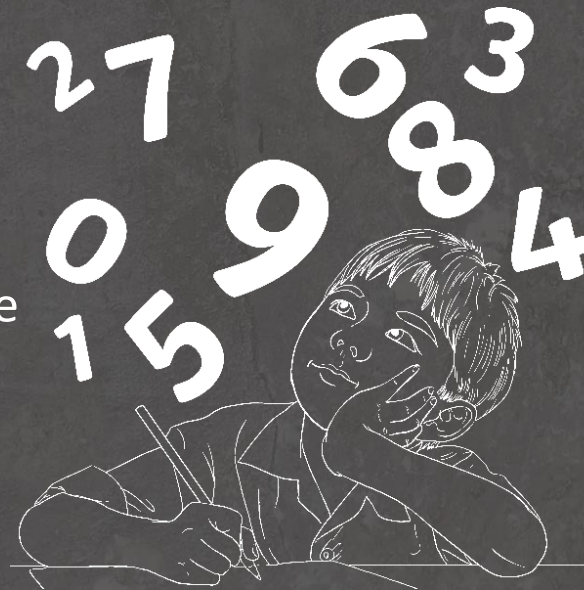
b) $\text{Median} = 7$

What Is the Mean?

The mean is a way of calculating the average of a set of numbers.

An average is a single value that represents a set of values.

It is useful to find an average because it can summarise a larger set of data into a single value that is typical for that data set.



What Is the Mean?

For example, in a class of 35 children, there will be a range of different shoe sizes. Finding the average shoe size sums up the data set of 35 shoe sizes as one shoe size that is typical for that class.

There are different ways of finding an average value of a set of data.

The **mean** is one of the ways of calculating an average value of a set of numerical data.

Numerical data is information that is presented as numbers.



The mean = the average of a set of numbers.



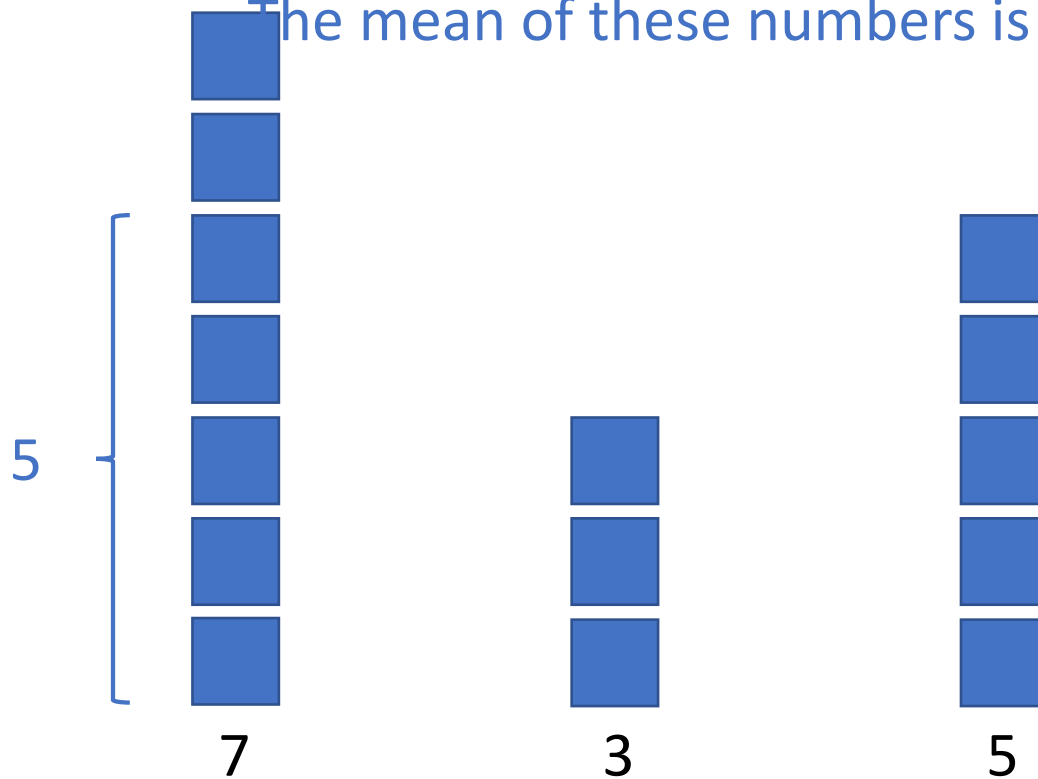
$$7 + 3 + 5 = 15$$

$$15 \div 3 = 5$$



$$\text{Mean} = 5$$

The mean of these numbers is 5



$$2 \quad 6 \quad 1 \quad 3 \quad 6 \quad 6 \quad = 24$$

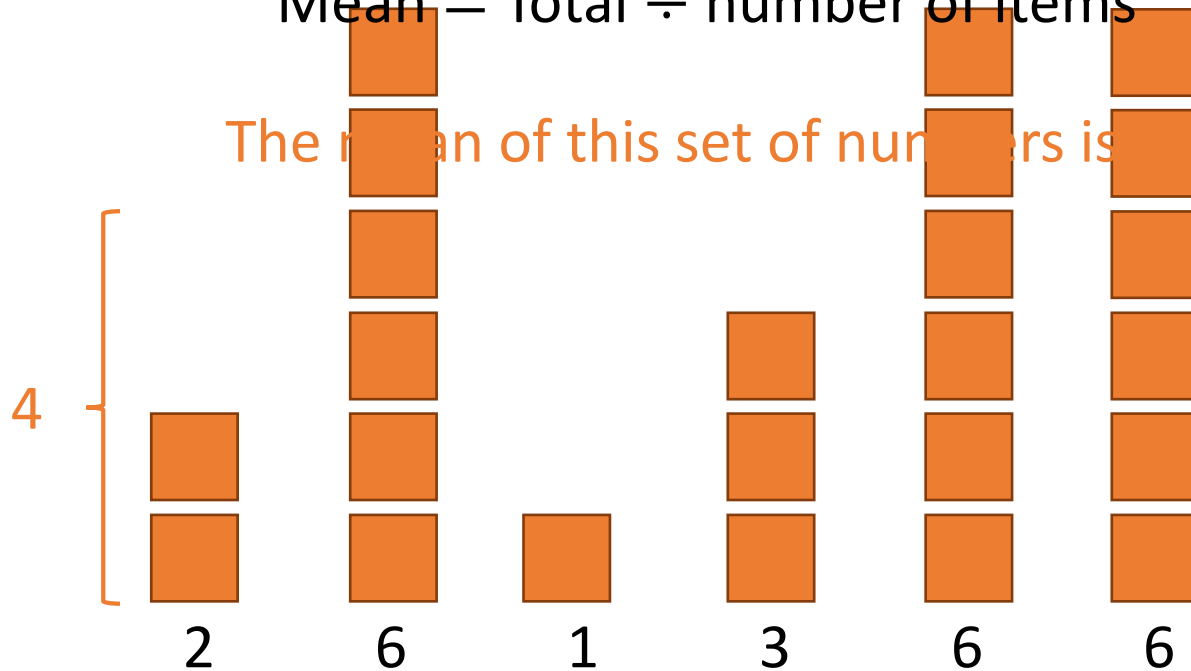
● ● ● ● ● ●

$$\text{Mean} = 4$$

$$24 \div 6 = 4$$

Mean = Total $\div$ number of items

The mean of this set of numbers is



Mean = Total $\div$ number of items

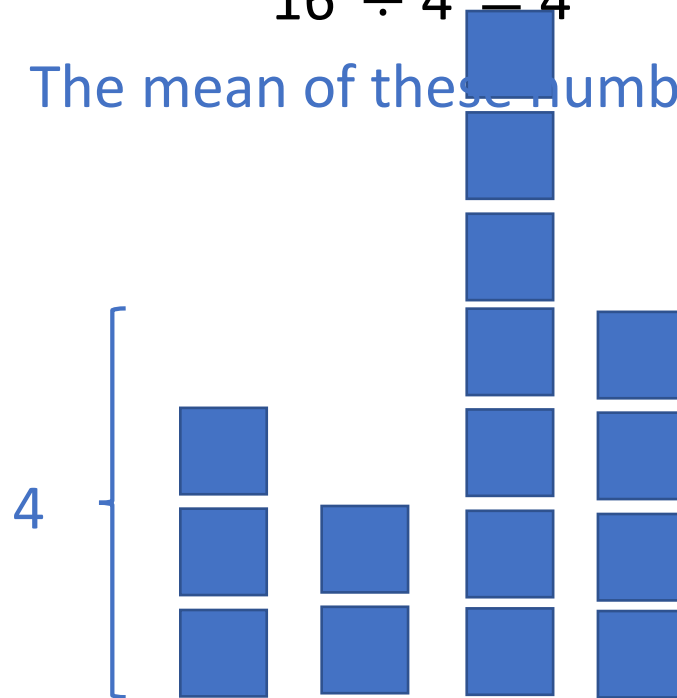
Find the mean of this set of numbers.

3 2 7 4



$$16 \div 4 = 4$$

The mean of these numbers is 4

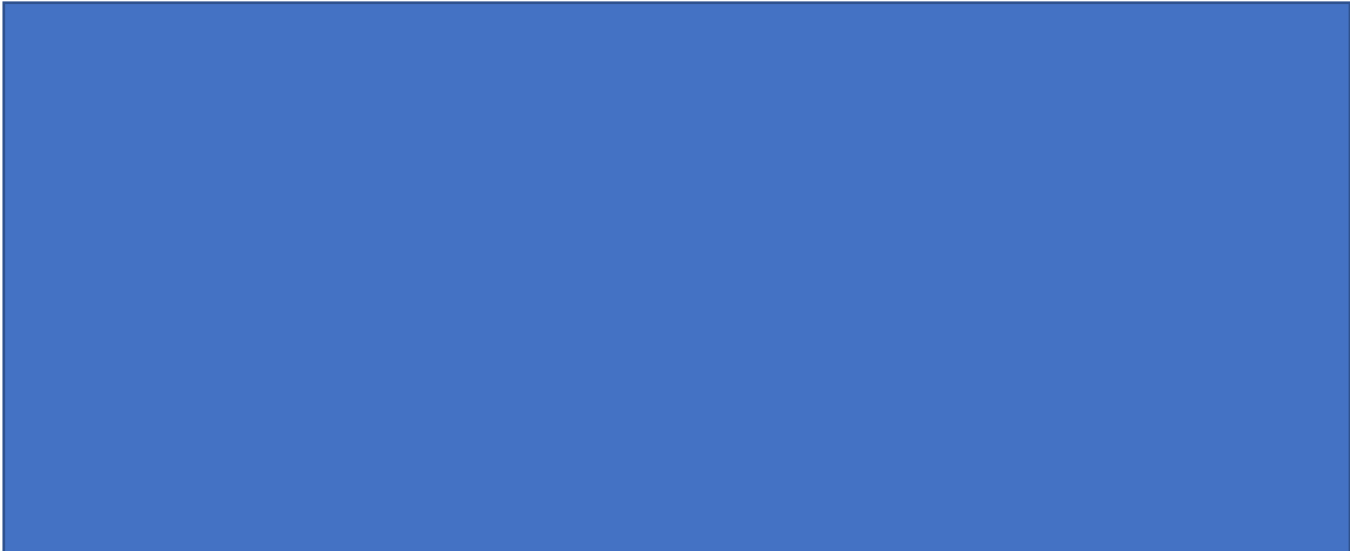


Have a think





Your turn



- 1 Scott has 2 counters. 
- Dani has 7 counters. 
- Kim has 3 counters. 

Share the counters evenly in order to find the mean number of counters.

The mean number of counters is

- 2 Find the mean of each set of numbers.

a)

3	2	7	4	4
---	---	---	---	---

b)

12	8	15	11	6	2
----	---	----	----	---	---

1

Scott has 2 counters.

Dani has 7 counters.

Kim has 3 counters.



Share the counters evenly in order to find the mean number of counters.

The mean number of counters is

2

Find the mean of each set of numbers.

a)

3

2

7

4

4

b)

12

8

15

11

6

2

- 1 Scott has 2 counters. 
- Dani has 7 counters. 
- Kim has 3 counters. 
- Share the counters evenly in order to find the mean number of counters.
- The mean number of counters is

- 2 Find the mean of each set of numbers.

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2

7

4

4

b)

12

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15

11

6

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- 2 Find the mean of each set of numbers.

a)

3

2

7

4

4

b)

12

8

15

11

6

2

- 3 Max collects football cards.

The table shows how many he collected over four years.

Year	Number of cards
2016	56
2017	104
2018	81
2019	103

Work out the mean number of cards collected per year.

Hex/ Oct

3

Max collects football cards.

The table shows how many he collected over four years.

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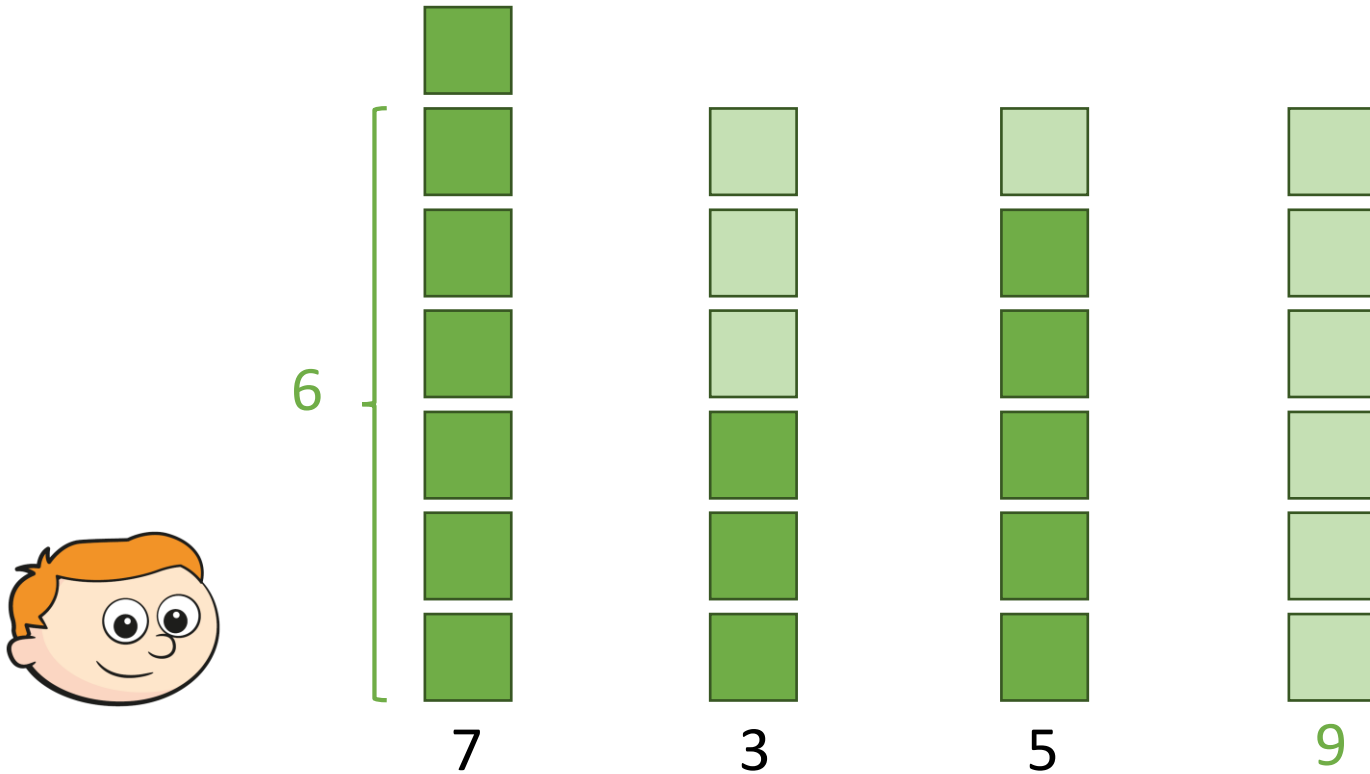
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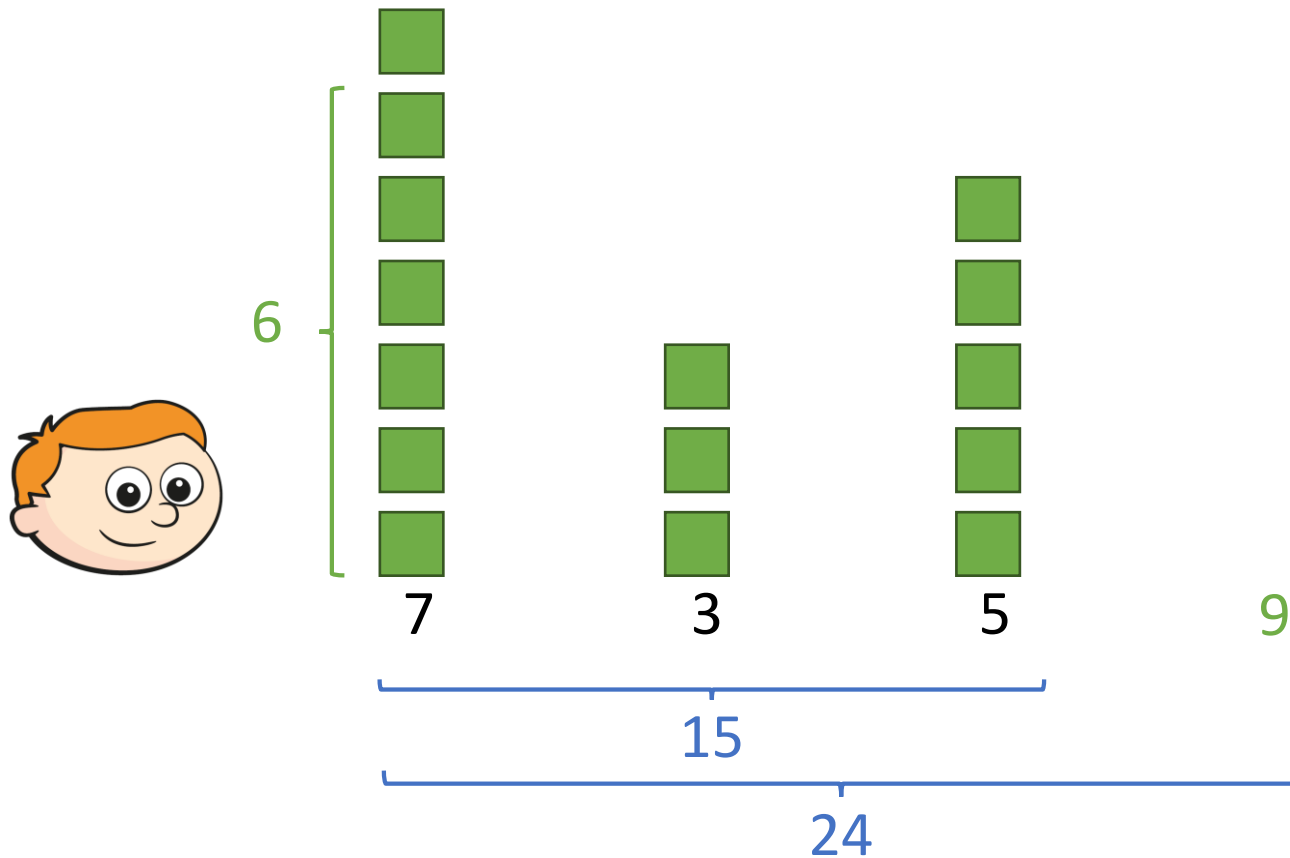
Work out the mean number of cards collected per year.



Ron's mean score was 6

What did he score on his fourth test?





Mean = Total $\div$ number of items

6 = Total $\div$ number of items

Total = 6 $\times$ 4

24

Have a think



Four numbers are written on cards.

The mean of the numbers is 11

What is the missing number?



$$11 = \text{Total} \div \text{Number of items}$$

$$\text{Total} = 44$$

$$\text{Mean} = \text{Total} \div \text{number of items}$$



5

The table shows how many pets a number of children have.
One value is missing.

Name	Number of pets
Brett	4
Nijah	0
Rosie	1
Teddy	2
Esther	
Tom	7

The mean number of pets is 3

How many pets does Esther have?

- 5 The table shows how many pets a number of children have.
One value is missing.

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Teddy	2
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The mean number of pets is 3
How many pets does Esther have?

Mean = Total $\div$ number of items

	Score
Game 1	4 – 2
Game 2	5 – 4
Game 3	6 – 1
Game 4	2 – 3
Game 5	0 – 4
Game 6	

The mean number of goals scored each game was 6

What could the score in the final game have been?

Mean = Total $\div$ number of items

	Score
Game 1	4 – 2
Game 2	5 – 4
Game 3	6 – 1
Game 4	2 – 3
Game 5	0 – 4
Game 6	

The mean number of goals scored each game was 6

What could the score in the final game have been?

How many goals need to be scored in total?

Mean $\times$ number of items

$$6 \times 6 = 36$$

Mean = Total $\div$ number of items

	Score
Game 1	4 – 2 6
Game 2	5 – 4 9
Game 3	6 – 1 7
Game 4	2 – 3 5
Game 5	0 – 4 4
Game 6	

The mean number of goals scored each game was 6

What could the score in the final game have been?

How many goals have been scored so far?

$$6 + 9 + 7 + 5 + 4 = 31$$

Mean = Total $\div$ number of items

	Score
Game 1	4 – 2 6
Game 2	5 – 4 9
Game 3	6 – 1 7
Game 4	2 – 3 5
Game 5	0 – 4 4
Game 6	

The mean number of goals scored each game was 6

$$36 - 31 = 5$$

What could the score in the final game have been?

How many goals need to be scored in the final game?

Mean = Total $\div$ number of items

	Score
Game 1	4 – 2 6
Game 2	5 – 4 9
Game 3	6 – 1 7
Game 4	2 – 3 5
Game 5	0 – 4 4
Game 6	

The mean number of goals scored each game was 6

Have a think



5 - 0 4 - 1 3 - 2

2 - 3 1 - 4 0 - 5

What could the score in the final game have been?

What score would give 5 goals?

Can you find all possible results?

Extension

6

Six numbers are written on cards.

The mean of the numbers is 12

Fill in the two missing numbers if one is double the other.

13		4	16	6	
----	--	---	----	---	--

Finding the Mean

Find the mean (to 2 decimal places) of the following sets of data:

Children's Heights

1.45m

1.45m

1.45m

1.45m

1.45m

1.45m

1.45m



1.45m

Finding the Mean

Find the mean (to 2 decimal places) of the following sets of data:

Distances to School from Children's Homes

1.6km

1.25km

0.3km

0.75km

2.3km

0.15km

0.98km



1.05km

Finding the Mean

Find the mean (to 2 decimal places) of the following sets of data:

Weights of Children's Pets

35g

1.35kg

2.3kg

90g

3kg

5.5kg

457g



1.82kg 1818.86g

Y6 – Spring – Block 6 – Step 6 – The mean Answers

Question	Answer						
1	The mean number of counters is 4						
2	a) 4 b) 9 c) 5.1						
3	86						
4	a) 36 b) multiple possible answers, e.g. 7, 8, 10, 11 1, 3, 5, 27 There are a large number of possible answers.						
5	4						
6	<table><tr><td>13</td><td>11</td><td>4</td><td>16</td><td>6</td><td>22</td></tr></table>	13	11	4	16	6	22
13	11	4	16	6	22		
7	a) 180 b) 70						
8	a) The mean height will increase. b) The mean height will stay the same. c) The mean height will decrease.						

Weds Maths meeting

Long Division

Crucial vocabulary



- Share
- Groups of
- Separate into parts
 - Split
 - Group
 - Evenly
- Remainder
- Left over



- 4 Tick the cards that give the same answer.

$$2,730 \div 35$$

$$2,088 \div 24$$

$$2,418 \div 31$$

- 5 Amir is making flags. He sews 19 stars and 31 hearts onto each flag. He has 589 stars and 899 hearts.

How many flags can Amir complete?

Division –fraction as remainder....division decimals remainder

<https://thirdspacelearning.com/blog/division-with-remainders/>

quotient