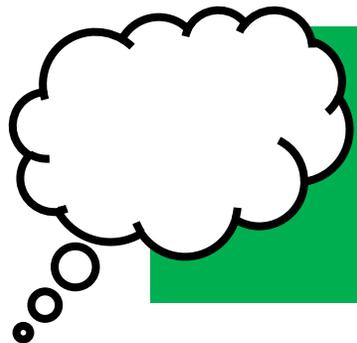


Lesson 4

L.O: I am learning to find the mean average (2)



**What is the mean?
How can you calculate it?**

Can you write your own definition of the mean down on a piece of paper.

Be ready to compare your definition to the one on the following slide.

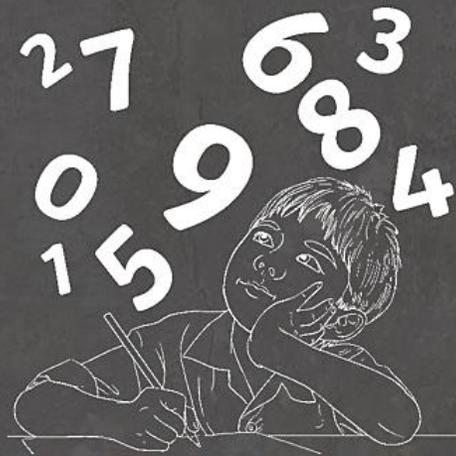
DEFINITION: The Mean

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?

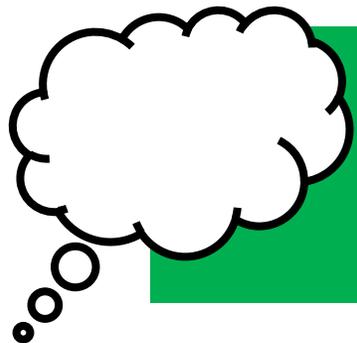
For example, in a class of 35 children, there will be a range of different shoe sizes. Finding the average shoe size sums up the data set of 35 shoe sizes as one shoe size that is typical for that class.

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.





Practice

Find the mean

Can you find the mean for this different set of data?

Can you explain your method?

How many times sunglasses were worn in one week	Total number	If each friend read the same number of books
Ania 		Ania
Beth 		Beth
Claire 		Claire

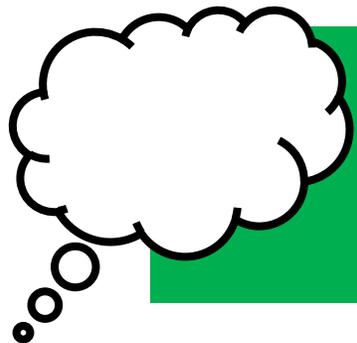
ANSWERS: Practice

Find the mean

Can you find the mean
for this different set of
data?

Can you explain your
method?

How many times sunglasses were worn in one week	Total number	If each friend read the same number of books
Ania 	12	Ania  
Beth 		Beth  
Claire 		Claire  



Practice

Here is a set of numbers.

How would you find the mean?

What is the mean of this set of data?

8, 14, 15, 16, 22

Practice

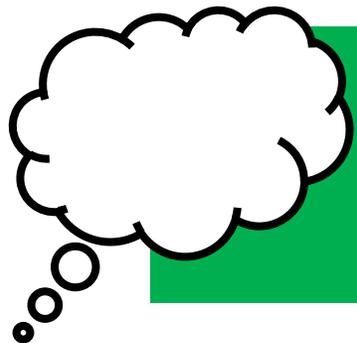
Here is a set of numbers.
How would you find the mean?
What is the mean of this set of data?

8, 14, 15, 16, 22

First, total the numbers $8 + 14 + 15 + 16 + 22 = 75$

Then, divide by the number of numbers in the data 5

So, $75 \div 5 = 15$. The mean is 15.



Unpicking the method

Five numbers have a mean of 6

Four of the numbers are shown:

9 7 4 7

Work out the value of the missing number.

1. FIRST: To find the total of the numbers.

To do this: multiply the amount of numbers by the mean average.

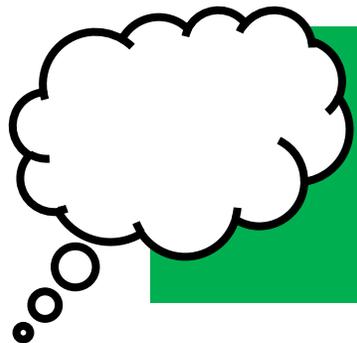
$$5 \times 6 = 30 \text{ (product)}$$

2. NEXT: add together your known numbers : $9 + 7 + 4 + 7 = 27$ (total)

3. FINALLY: Take away your **product** from your **total**

$$30 - 27 = 3$$

The missing number is 3.



Unpicking the method

Three positive whole numbers are all different.

Step 3

The mean of the numbers is 4 ——— TOTAL = $3 \times 4 = 12$

One of the numbers is 5

Find the other two numbers.

Three positive whole numbers are all different.

The mean of the numbers is 4

One of the numbers is 5

Find the other two numbers.

$12 - 5 = 7$ [so TOTAL OF MISSING NUMBERS IS 7] Step 3

OPTIONS

- 1 + 6
- 2 + 5
- 3 + 4

NOT POSSIBLE BECAUSE ALL THE NUMBERS MUST BE DIFFERENT!

1 AND 6

Step 3

Step 3

NOT POSSIBLE BECAUSE ALL THE NUMBERS MUST BE DIFFERENT!

[OR 3 AND 4]

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

The Mean



Once you have finished turn this assignment in on Google Classroom.



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

SATs Questions Task

- Today, you will be applying your understanding of the mean to a series of SATs questions.
- If you need support, remember to work through the examples and videos on today's and yesterday's power points.
- Answers with written solutions will be released on Friday!

Try your very best – Good Luck!

Week 2_Maths_Lesson 4

Lesson 4

L.O: I am learning to find the mean average (2).

Try your absolute best! That is all we are asking for 😊

Key vocabulary: Average, Mean, Total, Product	Your answer																
Here are three numbers. <div style="display: flex; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">7</div> <div style="border: 1px solid black; padding: 2px 5px;">8</div> <div style="border: 1px solid black; padding: 2px 5px;">3</div> </div> Work out the mean of these numbers. Seven children measured their heights. <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>Children</th> <th>Height (cm)</th> </tr> </thead> <tbody> <tr><td>Stefan</td><td>144</td></tr> <tr><td>Lara</td><td>136</td></tr> <tr><td>Olivia</td><td>142</td></tr> <tr><td>Chen</td><td>143</td></tr> <tr><td>Maria</td><td>152</td></tr> <tr><td>Dev</td><td>148</td></tr> <tr><td>Sarah</td><td>150</td></tr> </tbody> </table> What is the mean height of the children? Two numbers have a mean of 12 One of the numbers is 9 What is the other number? Three numbers have a mean of 13 Two of the numbers are 8 and 12 What is the other number?	Children	Height (cm)	Stefan	144	Lara	136	Olivia	142	Chen	143	Maria	152	Dev	148	Sarah	150	
Children	Height (cm)																
Stefan	144																
Lara	136																
Olivia	142																
Chen	143																
Maria	152																
Dev	148																
Sarah	150																

Week 2_Maths_Lesson 4

The mean of three numbers is 5
 One of these numbers is 2

What could the other numbers be?
 Write them on the cards below.

2

What else could the numbers be?
 Use **different** numbers from your answer above.
 Write them on the cards below.

2

Hanif asked ten people:
 "What is your favourite sport?"

Here are his results.

football	cricket	football	hockey	swimming
hockey	swimming	football	netball	football

Is it possible to work out the mean of these results?
 Yes No

Explain how you know.
 A person must be 1.40 metres, or taller, to ride on Nemesis in Alton Towers.
 The mean (average) height of Tommy and his friends is 1.50 metres.
 Tommy says

"We are all allowed to ride on Nemesis"

Explain why Tommy might be wrong.
 Megan goes on a walking holiday for five days.
 The table shows how far she walked on the first four days.

Monday	Tuesday	Wednesday	Thursday
14km	23km	13km	13km

Megan says,
 "My average for the first four days is more than 15km."
 Explain why Megan is correct.