

Lesson 3

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																
<p>Here are three numbers.</p> <div style="text-align: center;"> 7 8 3 </div> <p>Work out the mean of these numbers.</p>	<p>Here are three numbers.</p> <div style="text-align: center;"> 7 8 3 </div> <p>Work out the mean of these numbers.</p> $\frac{7 + 8 + 3}{3} = \frac{18}{3}$ $= \underline{\underline{6}}$ <div style="text-align: right; border: 1px solid black; padding: 5px; width: 50px; margin-left: auto;">6</div>																
<p>Seven children measured their heights.</p> <table border="1" style="margin-left: auto; margin-right: 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> <p>What is the mean height of the children?</p>	Children	Height (cm)	Stefan	144	Lara	136	Olivia	142	Chen	143	Maria	152	Dev	148	Sarah	150	<p>What is the mean height of the children?</p> $\frac{144 + 136 + \dots + 150}{7} = \frac{1015}{7} = \underline{\underline{145}}$ <div style="text-align: right; border: 1px solid black; padding: 5px; width: 50px; margin-left: auto;">145</div>
Children	Height (cm)																
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<p>Two numbers have a mean of 12</p> <p>One of the numbers is 9</p> <p>What is the other number?</p>	<p>Two numbers have a mean of 12</p> <p>One of the numbers is 9</p> <p>What is the other number?</p> <p>TOTAL = $2 \times 12 = 24$</p> $24 - 9 = \underline{\underline{15}}$ <div style="text-align: right; border: 1px solid black; padding: 5px; width: 50px; margin-left: auto;">15</div>																
<p>Three numbers have a mean of 13</p> <p>Two of the numbers are 8 and 12</p> <p>What is the other number?</p>	<p>Three numbers have a mean of 13</p> <p>Two of the numbers are 8 and 12</p> <p>What is the other number?</p> <p>TOTAL = $3 \times 13 = 39$</p> $39 - (8 + 12)$ $= 39 - 20$ $= \underline{\underline{19}}$ <div style="text-align: right; border: 1px solid black; padding: 5px; width: 50px; margin-left: auto;">19</div>																

Week 5_Maths_Lesson 3

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**.

The **mean** of **three** numbers is **5**


One of these numbers is 2

TOTAL = 3 x 5 = 15

What could the other numbers be?

Write them on the cards below.

ANY TWO NUMBERS THAT ADD TO 13!

2  1 12

What else could the numbers be?

Use **different numbers** from your answer above.

Write them on the cards below.

2  6 7

Is it possible to work out the **mean** of these results?

Yes No

Explain how you know.

IT IS ONLY POSSIBLE TO FIND THE MEAN OF A SET OF NUMBERS AND THESE RESULTS ARE WORDS!

SOME PEOPLE WILL BE SHORTER THAN THE MEAN. ONE OF THEM MIGHT BE LESS THAN 140 CM, BUT THE MEAN IS 1.50 METRES BECAUSE OF A VERY TALL PERSON 'BALANCING OUT' THE SHORT PERSON

14 + 23 + 13 + 13 = 63
IF AVERAGE FOR FOUR DAYS WAS 15 THE TOTAL WOULD BE JUST 4 x 15 = 60!

Week 5_Maths_Lesson 3

Here are some cards with numbers on them.

1 1 2 3 5 8 13 21

Choose **three** numbers which have a mean of 4

_____, _____ and _____

Choose **four** numbers which have a mean of 4

_____, _____, _____ and _____

Choose **five** numbers which have a mean of 4

_____, _____, _____, _____ and _____

Here are some cards with numbers on them.

1 1 2 3 5 8 13 21

Choose **three** numbers which have a mean of 4 → TOTAL = 12

1, 3 and 8

Choose **four** numbers which have a mean of 4 → TOTAL = 16

1, 2, 5 and 8

Choose **five** numbers which have a mean of 4 → TOTAL = 20

1, 1, 2, 3 and 13

Evaluation

How would you rate your understanding of the mean out of 10) and why?