Varied Fluency
Step 8: The Mean

National Curriculum Objectives:

Mathematics Year 6: (6S3) Calculate and interpret the mean as an average

Differentiation:

Developing Questions to support calculating the mean of up to 5 numbers. Questions and answers using whole numbers only.

Expected Questions to support calculating the mean of up to 6 numbers. Questions include some decimal numbers, answers using whole numbers only.

Greater Depth Questions to support calculating the mean of up to 6 numbers. Questions and answers include some decimal numbers and conversions of mm, cm and m.

More Year 6 Statistics resources.

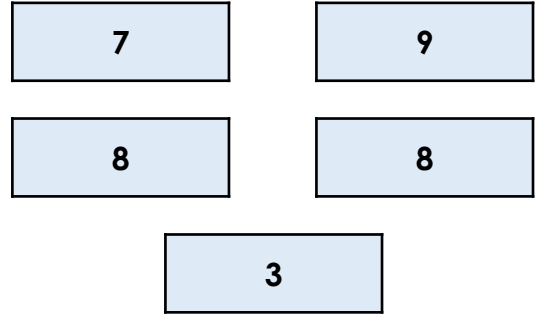## Did you like this resource? Don't forget to review it on our website.

The Mean

The Mean
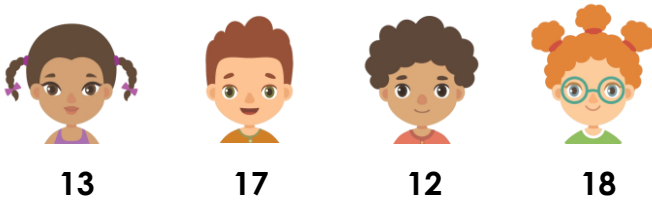
1a. Calculate the mean of these numbers.

| 8 | 9 |
| 1 | 2 |

| 5 |

D — VF

1b. Calculate the mean of these numbers.

| 7 | 9 |
| 8 | 8 |

| 3 |
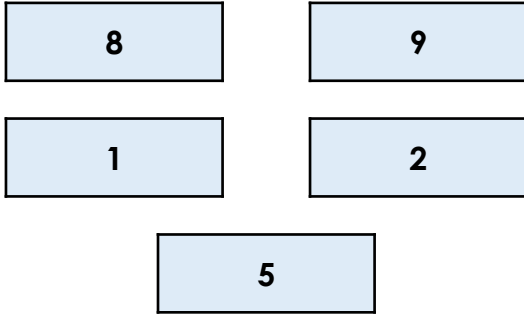
D — VF

2a. Tick the correct mean of these children's test scores.

13   17   12   18

| 13 | 14 | 15 |

D — VF

2b. Tick the correct mean of these children's Sports Day scores.

19   21   22   26

| 21 | 22 | 23 |
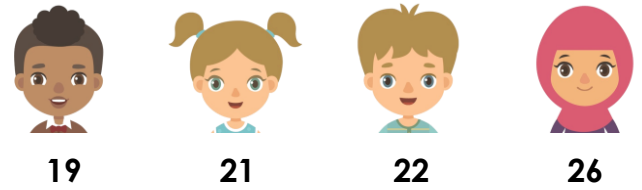
D — VF

3a. True or false? The mean of these numbers is 8.

| 6 | 8 | 4 | 7 | 5 |

D — VF

3b. True or false? The mean of these numbers is 7.

| 5 | 7 | 8 | 9 | 6 |

D — VF

4a. Four friends want to share out their sweets equally. They have 8, 4, 7 and 9 sweets.

What is the mean amount of sweets?

D — VF

4b. Four friends want to share their toys out equally. They have 9, 8, 3 and 12 toys.

What is the mean amount of toys?

D — VF

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Varied Fluency – The Mean – Year 6 Developing

The Mean | The Mean

5a. Calculate the mean of these numbers.

7.3	12
13.4	8
6	25.3

E | VF

5b. Calculate the mean of these numbers.

26	15.1
8.8	11
6	41.1

E | VF

6a. Tick the correct mean of these children's test scores.

23 21 19 30 27
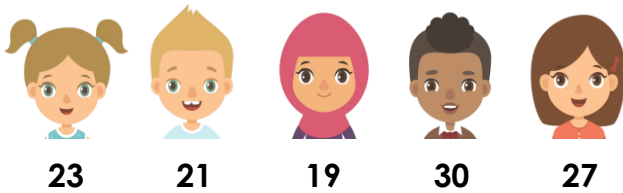
20   24   23

E | VF

6b. Tick the correct mean of these children's Sports Day scores.

25 23 27 26 29
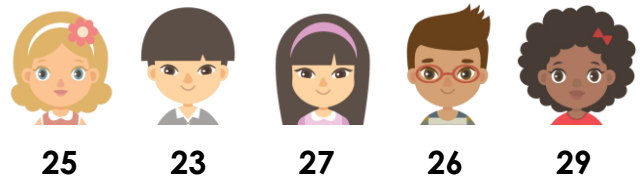
24   25   26

E | VF

7a. True or false? The mean of these numbers is 16.

| 12.4 | 17 | 13.1 |
| 16.3 | 18.2 | 19 |

E | VF

7b. True or false? The mean of these numbers is 19.

| 24.7 | 33 | 8.8 |
| 12.6 | 25 | 15.9 |

E | VF

8a. The chart below shows the weight of six different chimpanzees.

47.1kg 56.5kg
47kg
52kg
49.5kg
53.9kg
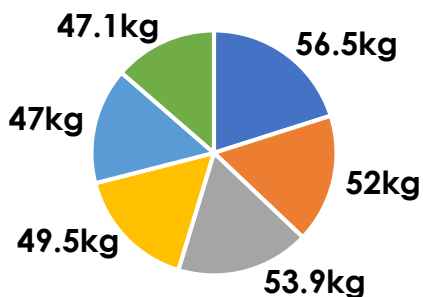
What is their mean weight?

E | VF

8b. The table below shows how much six friends spent on sweets.

Leon	£1.64
Alice	£0.65
Chloe	£2.33
Noah	£1.62
Jamie	£3.25
Samantha	£2.51

What is the mean amount they spent?

E | VF

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Varied Fluency – The Mean – Year 6 Expected

The Mean

9a. Calculate the mean of these numbers.

321.9	65.7
256.8	27.9
12.1	134.6

GD — VF

The Mean

9b. Calculate the mean of these numbers.

145.7	65.9
132.8	89.7
123.5	127.9

GD — VF

10a. Calculate the mean value of the place value counters.

100   10   0.1
10   0.1   100

GD — VF

10b. Calculate the mean of these coins.

GD — VF

11a. True or false? The mean of these numbers is $108\frac{1}{4}$.

| 124 | 272 | 14.7 |
| 37.3 | 123 | 60.5 |

GD — VF

11b. True or false? The mean of these numbers is $220\frac{1}{3}$.

| 34.1 | 561 | 128 |
| 432 | 2.9 | 164 |

GD — VF

12a. Six children have been growing plants and want to calculate the mean height. They measure 12cm, 204mm, 0.17m, 18.3cm, 167mm, 0.14m.

What is their mean height in cm?

GD — VF

12b. Six friends want to calculate their mean height. They measure 1.43m, 136cm, 1.4m, 139cm, 1410mm, 1350mm.

What is their mean height in metres?

GD — VF

Varied Fluency – The Mean – Year 6 Greater Depth

Developing
1a. **5**
2a. **15**
3a. **False (6)**
4a. **7**

Expected
5a. **12**
6a. **24**
7a. **True**
8a. **51kg**

Greater Depth
9a. **136.5**
10a. **36.7**
11a. **False (105 $\frac{1}{4}$) or 105.25**
12a. **16.4cm**

Developing
1b. **7**
2b. **22**
3b. **True**
4b. **8**

Expected
5b. **18**
6b. **26**
7b. **False (20)**
8b. **£2**

Greater Depth
9b. **114.25**
10b. **£0.76**
11b. **True**
12b. **1.39m**