

Statistics (1) - Measures of the Centre (Mean, Median & Mode)

- For each set of numbers below, calculate : i) the **range**; ii) the **mean**.
 - 5 7 3 8 8 5 3 9
 - 23 53 21 34 87 64
 - 1.4 4.7 7.1 12.2 4.6 13.1 20.2 11.8 5.0
- For each set of numbers below, establish the **median** and state the **mode**:
 - 2 3 3 3 4 4 5 7 7 8 8
 - 32 45 33 17 22 54 45
 - 6.3 1.7 8.8 1.2 8.6 4.1 10.7 6.3 6.3
 - 8 12 56 24 36 12 24 24
 - 11 11 7 12 16 17
 - 23 26 38 65 43 75 75 62 86 22
- For each set of numbers in Q2, calculate the **mean** value, rounding your answers to 1d.p.
- Calculate the mean of the numbers 5 12 7 3 2 5 1
 - Calculate the new mean when a 9 is added.
- Seven women have weights of 44kg , 51kg , 57kg , 63kg , 48kg , 49kg and 45kg.
 - Find the mean weight of the seven women.
 - Find the mean weight of the remaining five women after the lightest and the heaviest women leave.
- The average weight of 12 boxes is 2.4 kg.
 - What is the total weight of all 12 boxes?
 - If an extra box is added weighing 1.1 kg , what is the average weight of the thirteen boxes?
- The mean of six numbers is 4.7 . The mean of a different four numbers is 6.5 . Calculate the mean of all ten numbers together.
- The mean height of eight tomato plants is 42cm. A ninth plant is added to the group and the mean height of all nine plants is 43cm. Establish the height of the ninth plant.
- The following are the heights (in metres) of a group of people:
1.6 , 1.7 , 1.9 , 1.8 , 1.6 , 1.7 , 1.5 , 1.9 , 1.6 , 1.8
 - Find the mean, median and modal height of the group.
 - When a new member joined the group the mean height became 1.7 m exactly. What height was the new member?

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1. (a) i) range = 6 ii) mean = 6
(b) i) range = 66 ii) mean = 47
(c) i) range = 18.8 ii) mean = 8.9
2. (a) median = 4 mode = 3 (b) median = 33 mode = 45
(c) median = 6.3 mode = 6.3 (d) median = 24 mode = 24
(e) median = 11.5 mode = 11 (f) median = 52.5 mode = 75
3. (a) 4.9 (b) 35.4 (c) 6.0 (d) 24.5 (e) 12.3 (f) 51.5
4. (a) 5 (b) 5.5
5. (a) 51kg (b) 50kg
6. (a) 28.8kg (b) 2.3 kg
7. 5.42
8. 51 cm
9. (a) mean = 1.71 m , median = 1.7 m , mode = 1.6 m
(b) 1.6 m