

Averages Overview – www.m4ths.com – Steve Blades

- (1) Find the mode, median, mean and range of 6, -1, 6, 4, 7, 4, 7, 3, 7
- (2) The table below shows the ages of students at a school

Age	Frequency
11	22
12	13
13	14
14	38

Find the mode, median, mean and range of ages in the school.

- (3) What would the number 31 be called in the data set 5, 6, 3, 9, 2, 31, 5 ?
- (4) The largest number in a data set is 24 and the smallest is 22. Are the following statements true or false or maybe true? (i) The mode is 16 (ii) The median is 22.1 (iii) The mean is 21.9 (iv) The range is 2 (v) The median is an integer
- (5) Fred needs to average 65% over 5 tests to pass overall. His scores in the first 4 are: 62%, 48%, 36% and 23%. Can he still pass when he takes his 5th test?
- (6) Which is the best average to use when deciding which shoe size is the most representative in a data set?
- (7) What is the issue with using the mean when there is an outlier in the data set?
- (8) The following data set is made up of positive integers. 2, 5, 3, 9, 7, p, 11. Given that the range of the data set is 11, find the value of p.
- (9) If the mean average of 6 numbers is 3, what do the numbers sum to?
- (10) If there are 201 people in a survey, which person will be used for the median value?
- (11) Study the table below

# of phones per household	0	1	2	3	4	5
Frequency	2	11	24	18	6	6

Find the modal number of phones, median number of phones and mean number of phones

- (12) The values in a data set are all positive integers less than 6. One additional number is added to the data set. What would happen in the following situations? (i) What would happen to the mean if a double-digit positive integer is added? (ii) What would happen to the range if a positive number less than 2 was added? (iii) What would happen to the median if a negative number was added?
- (13) The mode of a data set is negative. The median of the data set is 2 and the range is 10. Given that there are 4 numbers in the data set, write 4 possible values that could be in the data set.
- (14) The mode of a data is the same as the mean. There are 4 numbers in the data set and they are not all the same. Given that the range of the data set is 2, find possible numbers for the data set.