

STATISTICS WORKSHEET
ANALYSING DATA
Raw Data & Frequency Table

Question 1

For each of the following set of data (i) {7,21,2,17,3,13,7,4,9,7,9} and (ii) {8, 4, 2, 10, 2, 5, 9, 12, 2, 6} , find the:

- (a) mean;
- (b) mode;
- (c) median.
- (d) range
- (e) upper and lower quartile
- (f) interquartile range

Question 2

Three positive integers a , b , and c , where $a < b < c$, are such that their median is 11, their mean is 9 and their range is 10. Find the value of a .

Question 3

Let a , b , c and d be integers such that $a < b$, $b < c$ and $c = d$.

- The mode of these four numbers is 11.
- The range of these four numbers is 8.
- The mean of these four numbers is 8.

Calculate the value of each of the integers a , b , c , d .

Question 4

From January to September, the mean number of car accidents per month was 630. From October to December, the mean was 810 accidents per month.

What was the mean number of car accidents per month for the whole year?

Question 5

A survey was conducted of the number of bedrooms in 208 randomly chosen houses. The results are shown in the following table.

Number of bedrooms	1	2	3	4	5	6
Number of houses	41	60	52	32	15	8

- (a) State whether the data is discrete or continuous.
- (b) Write down the mean, mode and median number of bedrooms per house.
- (c) The range and interquartile of the number of bedrooms.

Question 6

The following table shows the lengths, in cm, of 80 plants grown in a laboratory.

The following is an extract from the cumulative frequency table.

length in cm	Frequency
50	22
60	10
70	16
80	14

- (a) State whether the data is discrete or continuous.
- (b) Use the information in the table to find the (i) mean, (ii) median, and (iii) modal length of plants. Give your answer to **two** decimal places.
- (c) Find the range and interquartile range of the lengths of the plants

Question 7

A box contains 100 cards. Each card has a number between one and six written on it.

The following table shows the frequencies for each number.

Number	1	2	3	4	5	6
Frequency	26	10	20	k	29	11

- (a) Calculate the value of k .
- (b) Find the median
- (c) The value below which 75% of the data falls is called the _____. Find this value.

Question 8

The following table shows the mathematics marks scored by students.

Mark	1	2	3	4	5	6	7
Frequency	0	4	6	k	8	6	6

The mean mark is 4.6.

- (a) Find the value of k .
- (b) Write down the mode
- (c) Find the inter quartile range