

CHAPTER NINE

STATISTICS

Introduction:

- In statistics, we collect information or data and study it carefully.
- By so doing, we can make use of whatever comes out of the study.

The frequency:

- The frequency of a number is the number of times that it occurs or appears.
- Consider the following numbers:
2, 5, 2, 3, 2, 7, 5.
 - (a) 2 has a frequency of 3.
 - (b) 5 has a frequency of 2.
 - (c) 7 has a frequency of 1.

The range:

- The range of a group of numbers is the difference between the highest and the lowest number.

(Q1) Find the range of the following group of numbers: 2, 10, 7, 5, 17 and 11.

Soln:

The highest number = 17.

The lowest number = 2.

The range = $17 - 2 = 15$.

The mode:

- The mode of a group of numbers is the one with the highest occurrence, or the one with the highest frequency.
- It is also the number which appears more than the other numbers.

(Q2) Find the mode of the following numbers: 10, 10, 11, 15, 10, 8, 20.

Soln:

The mode = 10.

(Q3) Find the mode of these numbers: 7, 2, 7, 2, 2, 10, 15, 2, 2.

Soln:

The mode is 2.

N/B: It is possible for a data to have two modes.

(Q4) Find the mode of these numbers: 2, 2, 5, 6, 10, 5, 4.

Soln:

The mode is 2 and 5.

(Q5) Find the mode of the following numbers: 10, 12, 15, 10, 10, 12, 20, 12, 14

.

Soln:

The mode is 10 and 12.

N/B: It is possible to have a data without a mode.

(Q6) Find the mode of those numbers: 3, 2, 6, 8, 10, 12.

Soln:

Since none of these numbers has the highest frequency, then the data has no mode.

(Q7) Find the mode of these numbers: 10, 11, 10, 12, 11, 12.

Soln:

There is no mode

(Q8) Find the mode of this given data;

Numbers	Frequency
2	4
3	8
4	2
5	1

Soln:

Since the numbers with the highest frequency is 3, then the mode is 3.

N/B: The frequency is the same as the number of occurrence.