

C- **Mode** : Mode is one of the measures of central tendency of data analysis in statistics, which are values by which the central value of a set of data can be described The central value of a set of data, where the mode is expressed by the number of repeats in the data set, and it depends mainly on the frequency in the sample.

**1- Calculation of the Mode for unclassified data:**

It is the value that described as the greatest frequency.

For example\ calculate The mode of the following data?

$$[5,2,5,10,2,2] \qquad \text{Mode} = 2$$

**2- Calculation of the mode of the classified data:**

$$\text{Mode} = L_1 + \left( \frac{d_1}{d_1 + d_2} \right) * c$$

Whereas:

$L_1$  = Minimum modal class ,  $c$  = Category length

$d_1$  = It is the result of subtracting the frequency of the modal class from the frequency of the class before it

$d_2$  = It is the result of subtracting the frequency of the modal class from the frequency of the class after it

Class	f
150 – 159	8
160 – 169	12
170 – 179	15
180 – 189	9
190 - 199	6

← The modal class has the highest frequency

$$L = 170 , d_1 = 15 - 12 , d_2 = 15 - 9 , C = 10$$

$$\text{Mode} = 173.33$$

H.W\

1- Calculate the mode for the weights of the following a group of rice sacks:

<b>the weight (kg)</b>	<b>number of bags</b>
45	8
50	11
55	7
60	10
65	12
70	9
75	8

2- Calculate the measures of central tendency (mean, median, mode) for the following data?

<b>Class</b>	<b>f</b>
60-62	5
63-65	15
66-68	45
69-71	27
72-74	8