

Problems of One–variable statistics

1) Calculate mean, median, mode, standard deviation, mean absolute deviation, coefficient of variation, and bar chart based on the following table, where n_i denotes the absolute frequency of each value x_i :

x_i	n_i
9	2
12	8
15	3
18	5
21	4

2) Calculate mean, median, mode, standard deviation, mean absolute deviation, coefficient of variation, and bar chart based on the following table, where n_i denotes the absolute frequency of each value x_i :

x_i	n_i
0	9
3	3
6	4
9	2
12	8
15	7

3) Calculate mean, median, mode, standard deviation, quartile 3 and histogram chart based on the following table, where n_i denotes the absolute frequency:

Interval	n_i
[54, 68)	2
[68, 82)	1
[82, 96)	6
[96, 110)	7
[110, 124)	4

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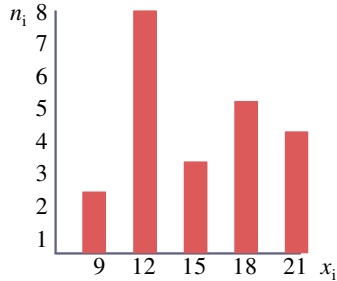
4) Calculate mean, median, mode, standard deviation, percentage of data below $x = 11.52$ and histogram chart based on the following table, where n_i denotes the absolute frequency:

Interval	n_i
[0, 12)	2
[12, 24)	5
[24, 36)	7
[36, 48)	8
[48, 60)	6
[60, 72)	4

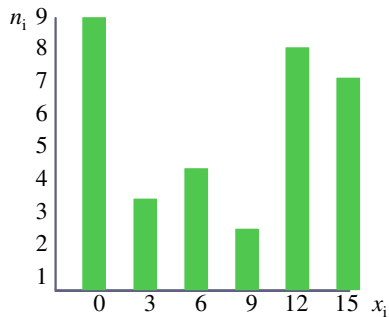
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Answers:

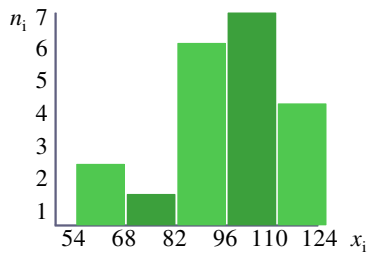
1) $\bar{x} = 15.136$ $Me = 15$ $Mo = 12$ $\sigma = 3.888$ $DM = 3.434$ $CV = 0.257$



2) $\bar{x} = 7.636$ $Me = 9$ $Mo = 0$ $\sigma = 5.866$ $DM = 5.405$ $CV = 0.768$



3) $\bar{x} = 96$ $Me = 98$ $Mo = 99.5$ $\sigma = 16.267$ $Q_3 = 108$



4) $\bar{x} = 38.625$ $Me = 39$ $Mo = 40$ $\sigma = 17.033$ 6%

