

1. Data on the durations (measured in months) were collected for a random sample of product development projects. The durations for these development projects were collected and tabulated as follows:

12	11	20	19	18	9	16	15
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- (i) Calculate the mean of the project durations.
  - (ii) Calculate the variance for this sample.
  - (iii) Calculate the standard deviation for this sample.
2. Consider the following data set of seven numbers:

29 14 17 30 19 25 13

For this sample, compute the following descriptive statistics:

- (i) The median,
  - (ii) The mean,
  - (iii) The variance,
  - (iv) The standard deviation.
3. The exam results for a class of 40 students are tabulated below.

20	36	37	37	41	43	44	44	44	45
49	50	51	52	52	52	52	53	53	53
54	55	55	57	57	59	59	59	62	62
65	66	67	70	71	74	86	87	89	98

- (i) Summarize the data in the above table using a relative frequency table and a cumulative relative frequency table. Use 6 class intervals, with 11 as the lower limit of the first interval.
  - (ii) Draw a histogram for the above data. Comment on the shape of the histogram. Based on the shape of the histogram, what is the best measure of centrality and variability?
  - (iii) Construct a box plot for the above data. Clearly demonstrate how all of the necessary values were computed.