

# Assignment 3

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CBSE 9th Statistics

**Question:** (Exercise 14.3 Q4)  $\Rightarrow$  The length of 40 leaves of a plant are measured correct to one millimetre, and the obtained data is represented in the following table:

Length(in mm)	Number of leaves
118-126	3
127-135	5
136-144	9
145-153	12
154-162	5
163-171	4
172-180	2

TABLE I

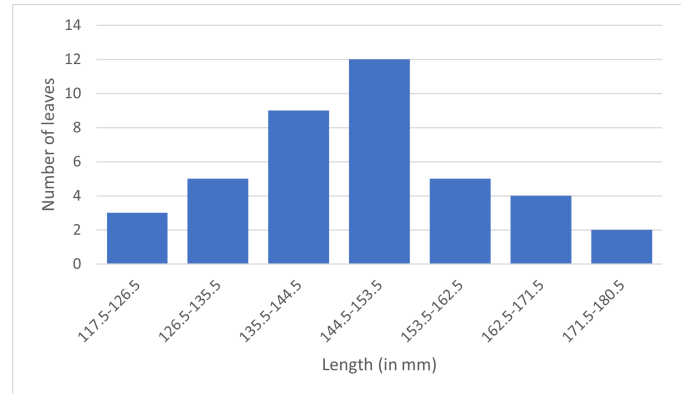


Fig. 1.

- (i) Draw a histogram to represent the given data.
  - (ii) Is there any other suitable graphical representation for the same data?
  - (iii) Is it correct to conclude that the maximum number of leaves are 153 mm long ? why?
- (ii) Yes ,the data given in the question can also be represented by frequency polygon.
  - (iii) No,we cannot conclude that the maximum number of leaves are 153mm long because the maximum number of leaves are lying in-between the length of 144.5 – 153.5

## Solution:

- (i) The data given in the question is represented in discountinuous class interval. So, we have to make it in continuous class interval.the difference is 1,so taking half of 1 ,we subtract  $1/2 = 0.5$  from lower limit and add 0.5 to the upper limit.Then the table becomes:

Length (in mm)	Number of leaves
117.5-126.5	3
126.5-135.5	5
135.5-144.5	9
144.5-153.5	12
153.5-162.5	5
162.5-171.5	4
171.5-180.5	2

TABLE II