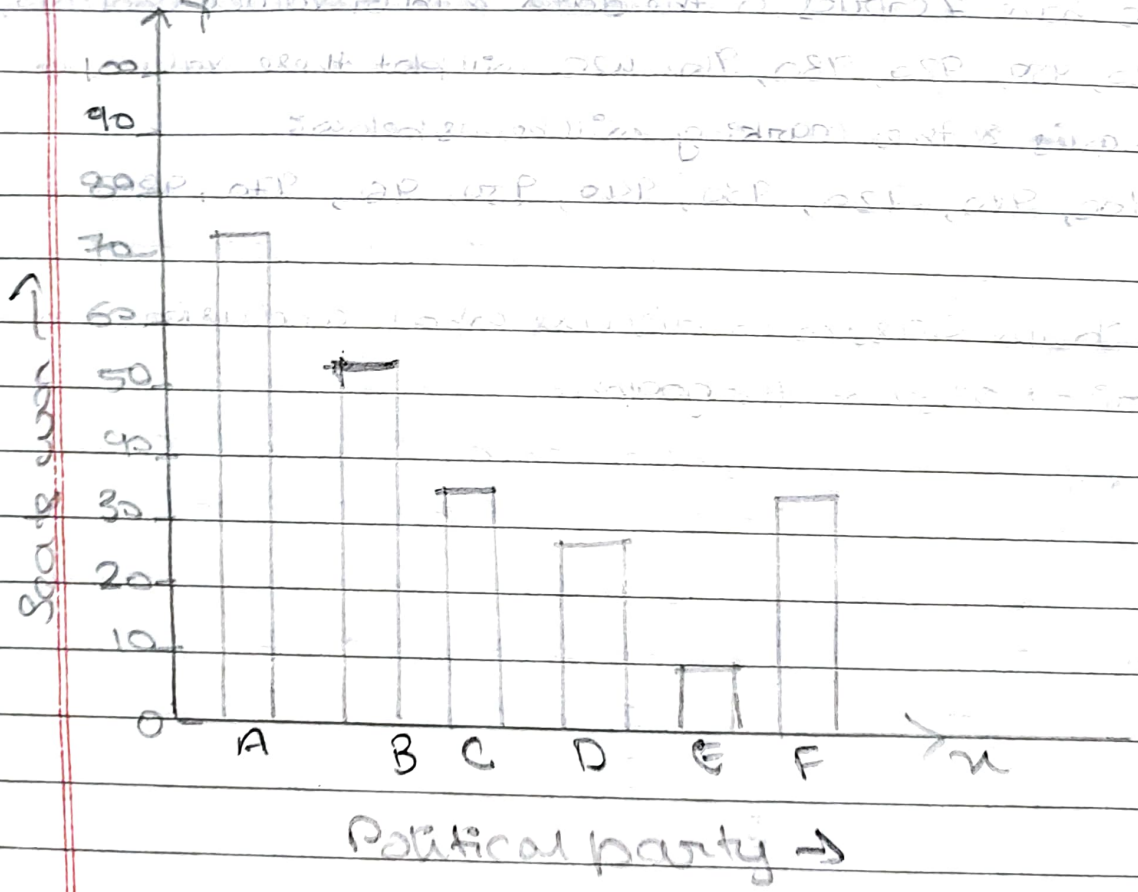
3. Given below are the seats won by different political parties in the polling outcome of a state assembly elections:

Political party	A	B	C	D	E	F
Seats won	75	55	37	29	10	37

i) Draw a bar graph to represent the polling results.

→ The required bar graph is given below:



ii) Which political party won the maximum number of seats?

→ The political party A won the maximum no. of seats.

Q4. 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)	No. of leaves
118-126	3
127-135	5
136-144	9
145-153	12
154-162	5
163-171	4
172-180	2

1) Draw a histogram to represent the given data.

→ The given frequency distribution is not continous. Then, we have to modify it to be continous distribution.

$$\frac{127-126}{2} = \frac{1}{2} = 0.5$$

Now, the modified class intervals are:

(118-0.5) (126+0.5) = 117.5 126.5

(127-0.5) (135+0.5) = 126.5 135.5

(135 - 0.5) (144 + 0.5) = 135.5 144.5

(145 - 0.5) (153 + 0.5) = 144.5 153.5

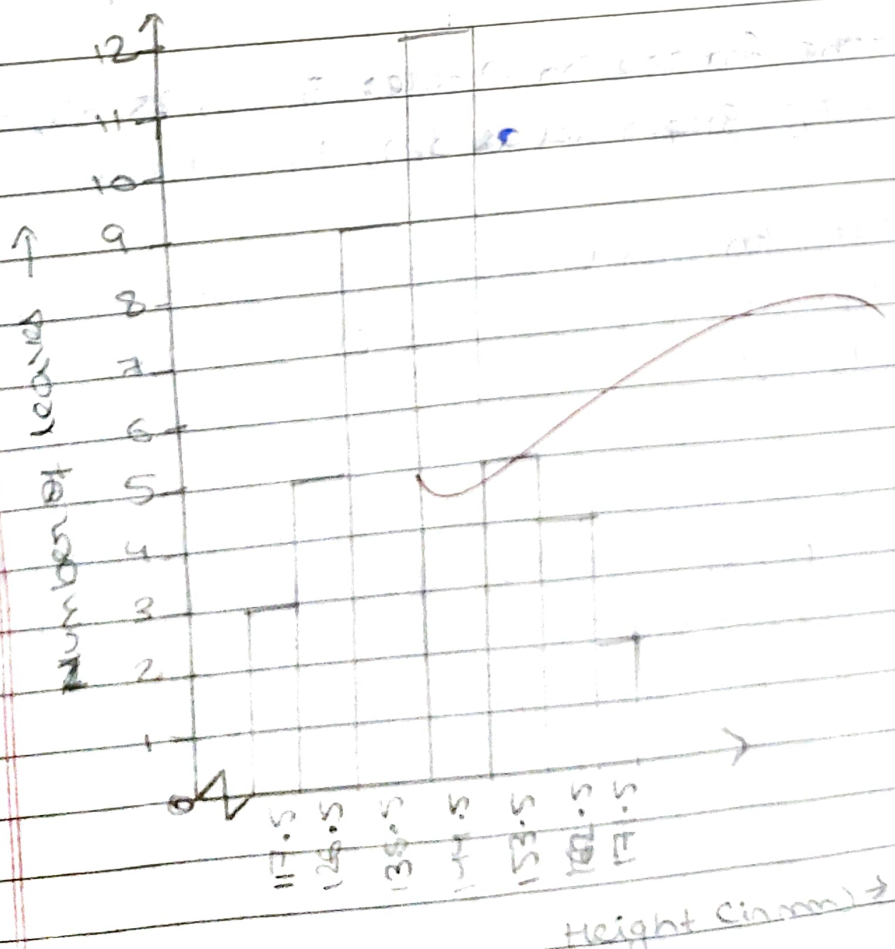
(154 - 0.5) (162 + 0.5) = 153.5 162.5

(163 - 0.5) (171 + 0.5) = 162.5 171.5

(172 - 0.5) (180 + 0.5) = 171.5 180.5

The frequency distribution is

length (in mm)	Number of leaves
117.5 - 126.5	3
126.5 - 135.5	5
13.5 - 144.5	9
144.5 - 153.5	12
153.5 - 162.5	5
162.5 - 171.5	4
171.5 - 180.5	2



Q6. The following table gives the distribution of students of two sections according to mark obtained by them.

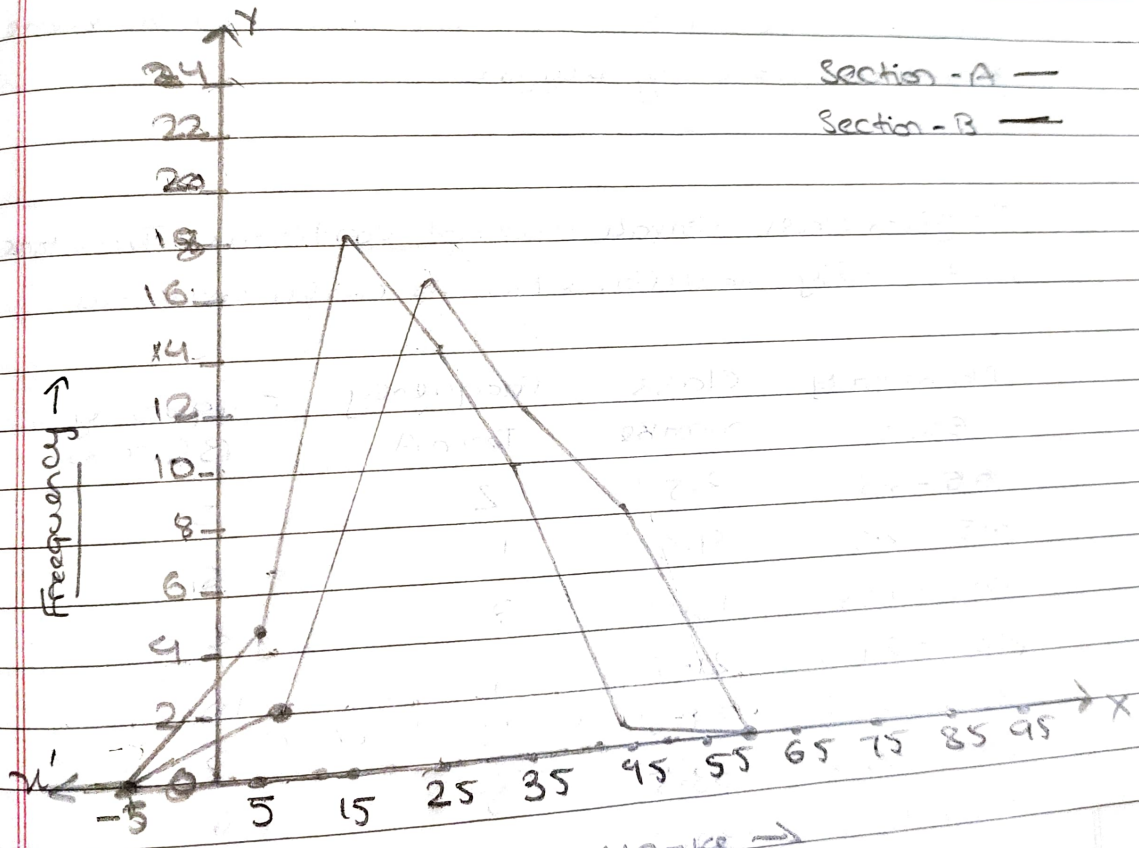
Section A		Section B	
Marks	Frequency	Marks	Frequency
0-10	3	0-10	5
10-20	9	10-20	19
20-30	17	20-30	15
30-40	12	30-40	10
40-50	9	40-50	1

Represent the marks of the students of both the sections on the graph by two frequency polygons. From the two polygons compare the performances of two sections.

→ Class marks for section A are: 5, 15, 25, 35, 45 & corresponding frequencies are 3, 9, 17, 12, 9 respectively

Its frequency polygons are the join of the points (by line segment) (-5, 0); (5, 3); (15, 9); (25, 17); (35, 12) (45, 9) and (60, 0).

Similarly for the section B, the frequency polygon is the join of the points (-5, 0); (5, 5); (15, 19); (25, 15) (35, 10); (45, 1) and (60, 0)


Y
24
22
20
18
16
14
12
10
8
6
4
2
O
Frequency
Section - A
Section - B
-5
5
15
25
35
45
55
65
75
85
95
X
Class Marks →