6. The following table gives the distribution of students of two sections according to the marks 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 same graph by two frequency polygons. From the two polygons compare the performance of the two sections.

Solution:

The class-marks = (lower limit + upper limit)/2

For section A,

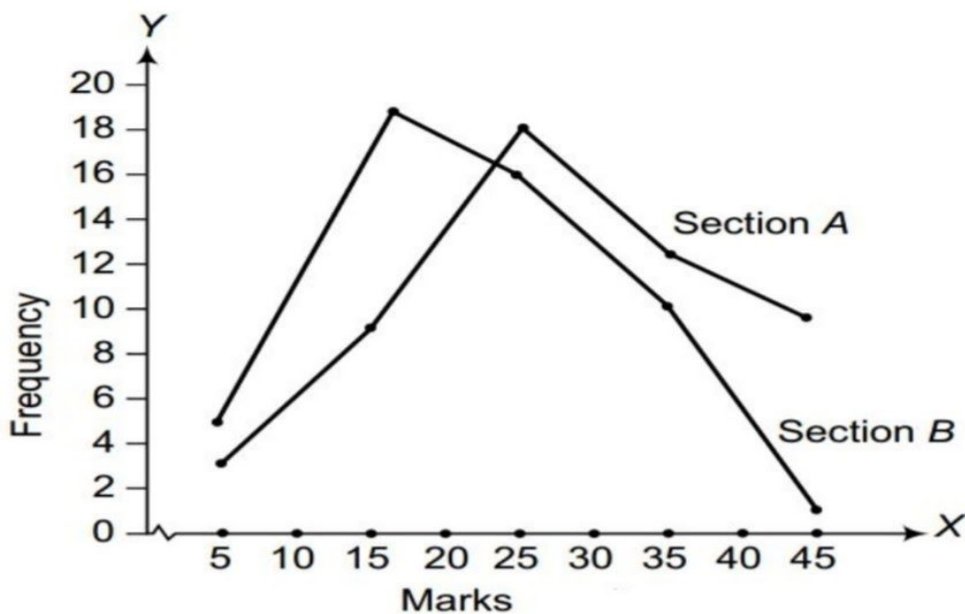| Marks	Class-marks	Frequency
0-10	5	3
10-20	15	9
20-30	25	17
30-40	35	12
40-50	45	9

For section B,

Marks	Class-marks	Frequency
0-10	5	5
10-20	15	19
20-30	25	15
30-40	35	10
40-50	45	1

Representing these data on a graph using

Representing these data on a graph using two frequency polygon we get,

From the graph, we can conclude that the students of Section A performed better than Section B.

7. The runs scored by two teams A and B on the first 60 balls in a cricket match are given below:

Number of balls	Team A	Team B
1 - 6	2	5
7 - 12	1	6
13 - 18	8	2
19 - 24	9	10
25 - 30	4	5
31 - 36	5	6
37 - 42	6	3
43 - 48	10	4
49 - 54	6	8
55 - 60	2	10

Represent the data of both the teams on the same graph by frequency polygons.

Solution:

The data given in the question is represented in discontinuous class interval. So, we have to make it in continuous class interval. The difference is 1, so taking half of 1, we subtract ½ = 0.5 = 0.5 from lower limit and add 0.5 to the upper limit. Then the table becomes

Number of balls	Team A	Team B
0.5-6.5	2	5
6.5-12.5	1	6
12.5-18.5	8	2
18.5-24.5	9	10
24.5-30.5	4	5
30.5-36.5	5	6
36.5-42.5	6	3
42.5-48.5	10	4
48.5-54.5	6	8
54.5-60.5	2	10

The data of both the teams are represented on the graph below by frequency polygons.