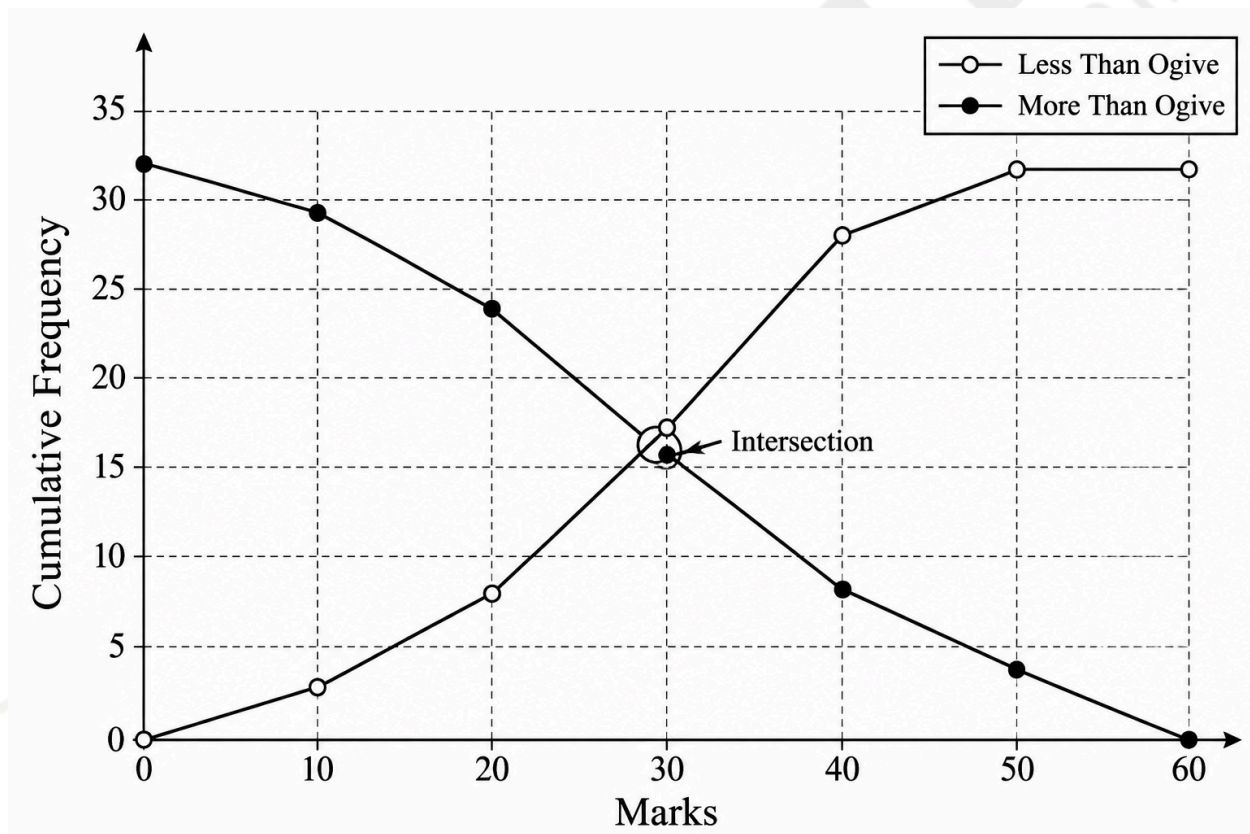


Class 10 Mathematics - Statistics

Name: _____

Date: _____

Advanced Worksheet 4



Questions

1. What is obtained from the point of intersection of the two ogives?
2. The total frequency of a distribution is 60. Which observation corresponds to the median?
3. A grouped distribution is given below:

Class Interval	Frequency
0–10	4
10–20	8
20–30	15
30–40	12
40–50	7
50–60	4

Find the median.

4. Identify the median class.
5. What is the significance of the median?
6. Why is the median useful for skewed data?

Answer Key

1. Median
2. 30th observation
- 3.

Total Frequency (N) = 50

$$N/2 = 25$$

Cumulative Frequencies:

4, 12, 27, 39, 46, 50

Median Class = 20–30

$$l = 20$$

$$cf = 12$$

$$f = 15$$

$$h = 10$$

$$\text{Median} = l + \left[\frac{N/2 - cf}{f} \right] \times h$$

$$\text{Median} = 20 + \left[\frac{25 - 12}{15} \right] \times 10$$

$$\text{Median} = 28.67$$

4. 20–30

5. It divides the data into two equal halves.

6. It is not affected by extreme values.

