

RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4: RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4 help students learn about histograms, which are graphical representations of data.

By practicing these exercises, students can improve their ability to visually present and analyze data. These solutions are designed to be easy to understand and are a helpful resource for students preparing for exams, providing thorough practice in using histograms for data representation in statistics.

RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4 Overview

The RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4 were created by experts from Physics Wallah. These solutions explain how to work with histograms, which show data in bars. They give clear steps to help you understand how to make and read histograms easily.

By using these solutions you can get better at seeing and analyzing data visually. They are made to be easy to understand and helpful for preparing for exams where you need to use histograms to show data in statistics.

RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4 PDF

The PDF link for RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4 is available below.

By using this PDF, students can learn how to create and interpret histograms effectively, enhancing their skills in visualizing and analyzing data. This resource is invaluable for students preparing for their math exams, providing comprehensive practice and guidance in using histograms for data representation in statistics.

RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4 PDF

RS Aggarwal Solutions for Class 10 Maths Chapter 9 Mean Median Mode Of Grouped Data Cumulative Frequency Graph And Ogive Exercise 9.4

Here we have provided RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4 for the ease of students so that they can prepare better for their exams.

Q. Find the median of the following data by making a 'less than ogive'.

Marks	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70
Number of students	5	3	4	3	3	4	7

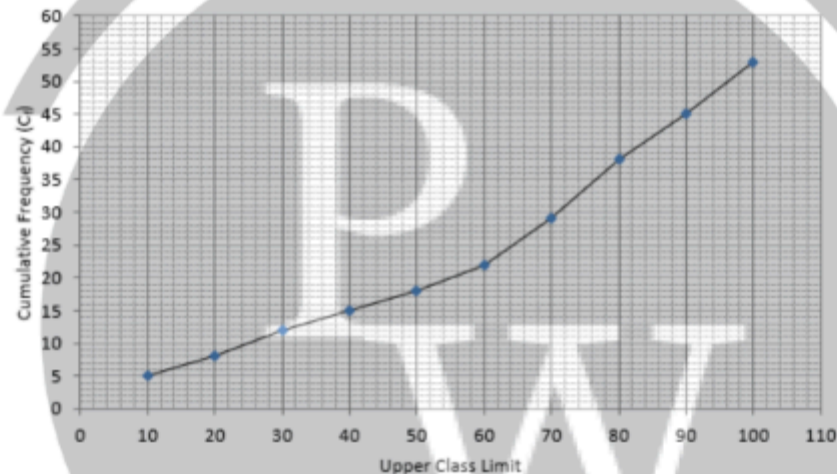
Solution:

The frequency distribution table for 'less than' type is:

MARKS	CUMULATIVE FREQUENCY (Cr)
Less than 10	5
Less than 20	$5 + 3 = 8$
Less than 30	$8 + 4 = 12$
Less than 40	$12 + 3 = 15$
Less than 50	$15 + 3 = 18$
Less than 60	$18 + 4 = 22$
Less than 70	$22 + 7 = 29$
Less than 80	$29 + 9 = 38$

Less than 90	$38 + 7 = 45$
Less than 100	$45 + 8 = 53$

Lets plot a graph of 'less than ogive', taking upper limits of the class intervals on x - axis and cumulative frequencies on y - axis.



As we have $N = 53$ by the frequency table.

$$N/2 = 53/2 = 26.5$$

Mark 26.5 on y - axis and the corresponding point on x - axis would be the median.

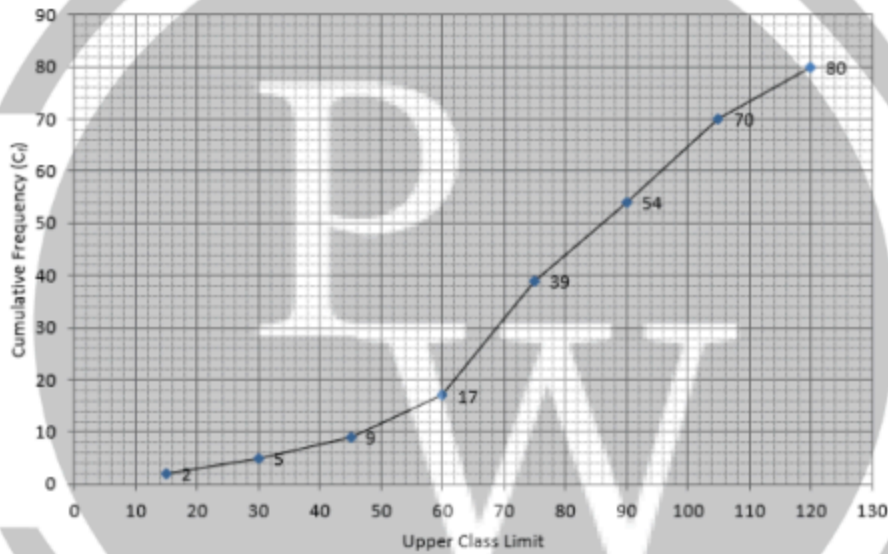
Q. The given distribution shows the number of wickets taken by the bowlers in one-day international cricket matches:

Number of wickets	Less than 15	Less than 30	Less than 45	Less than 60	Less than
Number of bowlers	2	5	9	17	39

Draw a 'less than type' ogive from the above data. Find the median.

Solution:

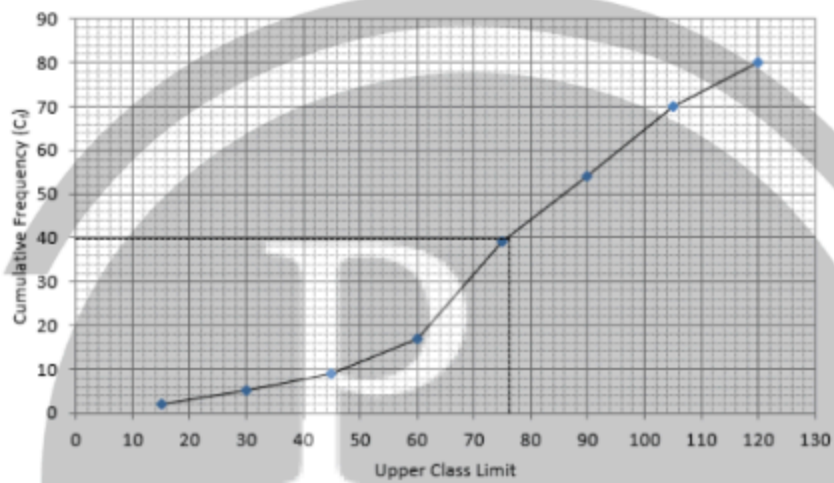
Lets plot a graph of 'less than ogive', taking upper limits of the class intervals on x - axis and cumulative frequencies on y - axis.



As we have $N = 80$ by the frequency table.

$$N/2 = 80/2 = 40$$

Mark 40 on y - axis and the corresponding point on x - axis would be the median.



The corresponding point on x - axis is 76.
Hence, median is 76.

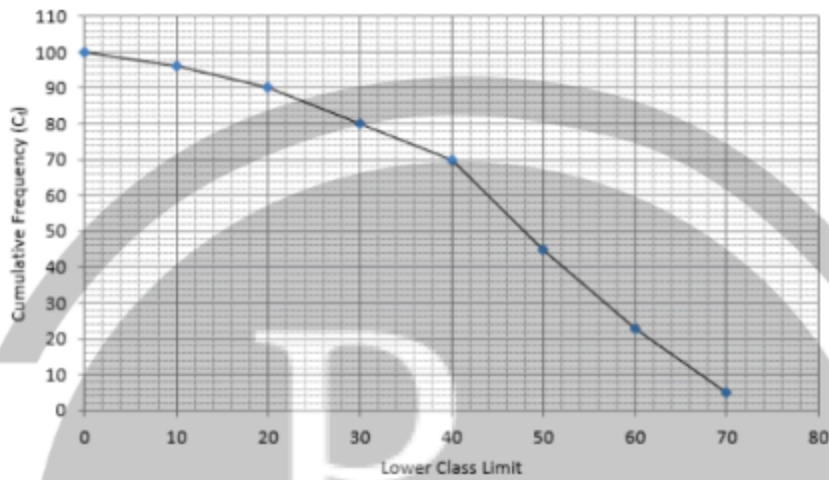
Q. Draw a 'more than' ogive for the data given below which gives the marks of 100 students.

Number of wickets	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70	70
Number of students	4	6	10	10	25	22	18	

The frequency distribution table for 'more than' type is:

MARKS	CUMULATIVE FREQUENCY (Cr)
more than 0	$96 + 4 = 100$
more than 10	$90 + 6 = 96$
more than 20	$80 + 10 = 90$
more than 30	$70 + 10 = 80$
more than 40	$45 + 25 = 70$
more than 50	$23 + 22 = 45$
more than 60	$5 + 18 = 23$
more than 70	5

Lets plot a graph of 'more than' ogive, taking lower limits of the class intervals on x - axis and cumulative frequencies on y - axis.



Q. The heights of 50 girls of Class X of a school are recorded as follows:

Height(in cm)	135 – 140	140 – 145	145 – 150	150 – 155	155 – 160	160 – 165
Number of girls	5	8	9	12	14	2

Draw a 'more than' ogive for the above data.

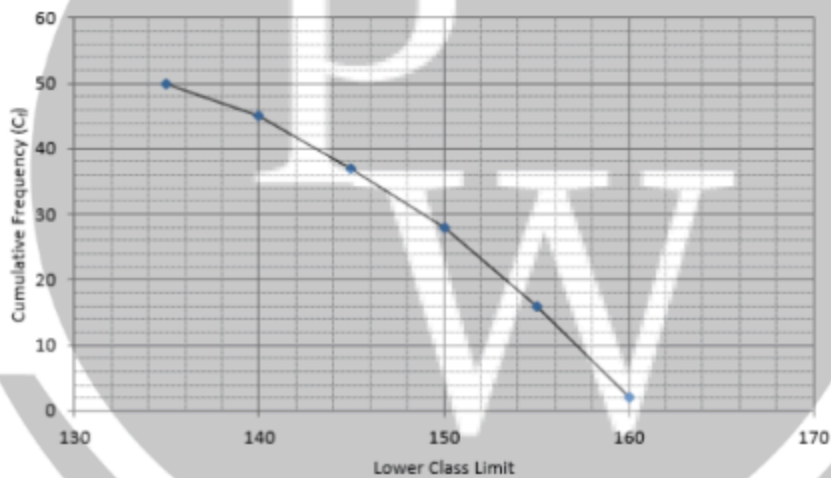
Solution:

The frequency distribution table for 'more than' type is:

HEIGHT(cm)	CUMULATIVE FREQUENCY (C_r)

more than 135	$45 + 5 = 50$
more than 140	$37 + 8 = 45$
more than 145	$28 + 9 = 37$
more than 150	$16 + 12 = 28$
more than 155	$2 + 14 = 16$
more than 160	2

Lets plot a graph of 'more than' ogive, taking lower limits of the class intervals on x - axis and cumulative frequencies on y - axis.



Q. The monthly consumption of electricity (in units) of some families of a locality is given in the following frequency distribution.

Monthly consumption(in units)	140 – 160	160 – 180	180 – 200	200 – 240	220 – 240
Number of families	3	8	15	40	50

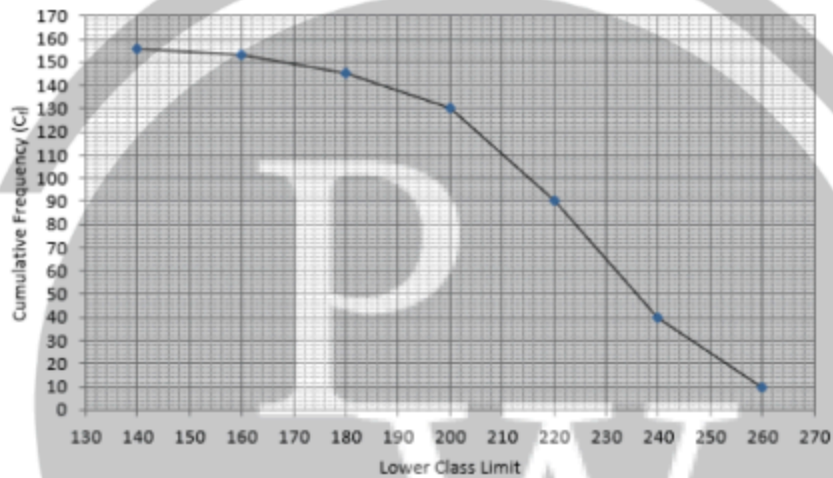
Prepare a 'more than type'ogive for the given frequency distribution:

Solution:

The frequency distribution table for 'more than' type is:

HEIGHT(cm)	CUMULATIVE FREQUENCY (C_r)
more than 140	$153 + 3 = 156$
more than 160	$145 + 8 = 153$
more than 180	$130 + 15 = 145$
more than 200	$90 + 40 = 130$
more than 220	$40 + 50 = 90$
more than 240	$10 + 30 = 40$
more than 260	10

Lets plot a graph of 'more than' ogive, taking lower limits of the class intervals on x - axis and cumulative frequencies on y - axis.



Q. The following table gives the production yield per hectare of wheat of 100 farms of a village.

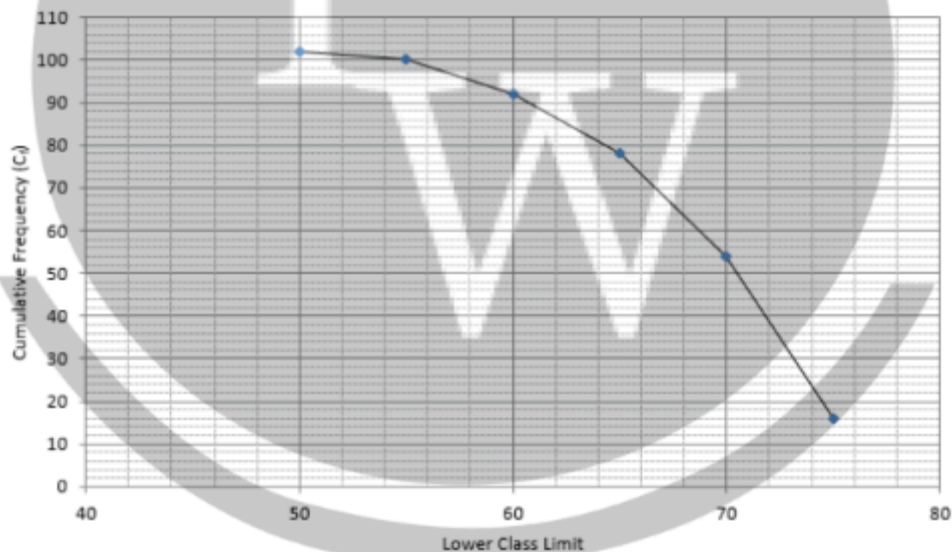
Production yield(kg/ha)	50 – 55	55 – 60	60 – 65	65 – 70	70 – 75	75 – 80
Number of farms	2	8	12	24	38	16

Change the distribution to a 'more than type' distribution and draw its ogive. Using ogive, find the median of the given data.

The frequency distribution table for 'more than' type is:

HEIGHT(cm)	CUMULATIVE FREQUENCY (C_r)
more than 50	$100 + 2 = 102$
more than 55	$92 + 8 = 100$
more than 60	$78 + 14 = 92$
more than 65	$54 + 24 = 78$
more than 70	$16 + 38 = 54$
more than 75	16

Lets plot a graph of 'more than' ogive, taking lower limits of the class intervals on x - axis and cumulative frequencies on y - axis.



Benefits of RS Aggarwal Solutions for Class 10 Maths Chapter 9 Exercise 9.4

- Clear Explanations:** The solutions provide clear explanations and step-by-step methods for constructing histograms, making it easier for students to understand and apply the concepts.

- **Graphical Representation Skills:** Students learn how to effectively present data using histograms, improving their ability to interpret and analyze data visually.
- **Practical Application:** By practicing these solutions, students develop practical skills in creating and interpreting histograms, which are important in various fields requiring data analysis.
- **Conceptual Clarity:** Students gain a deeper understanding of how histograms visually represent data distribution, aiding in their overall comprehension of statistical concepts.
- **Expert Guidance:** Prepared by subject experts at Physics Wallah, these solutions ensure accuracy and reliability, providing students with reliable guidance in learning and applying histogram techniques.