

Data Handling



ATOMIC ENERGY EDUCATION SOCIETY



MONTH : July
CLASS : Eight
SUBJECT : Mathematics

TOPIC

Data Handling

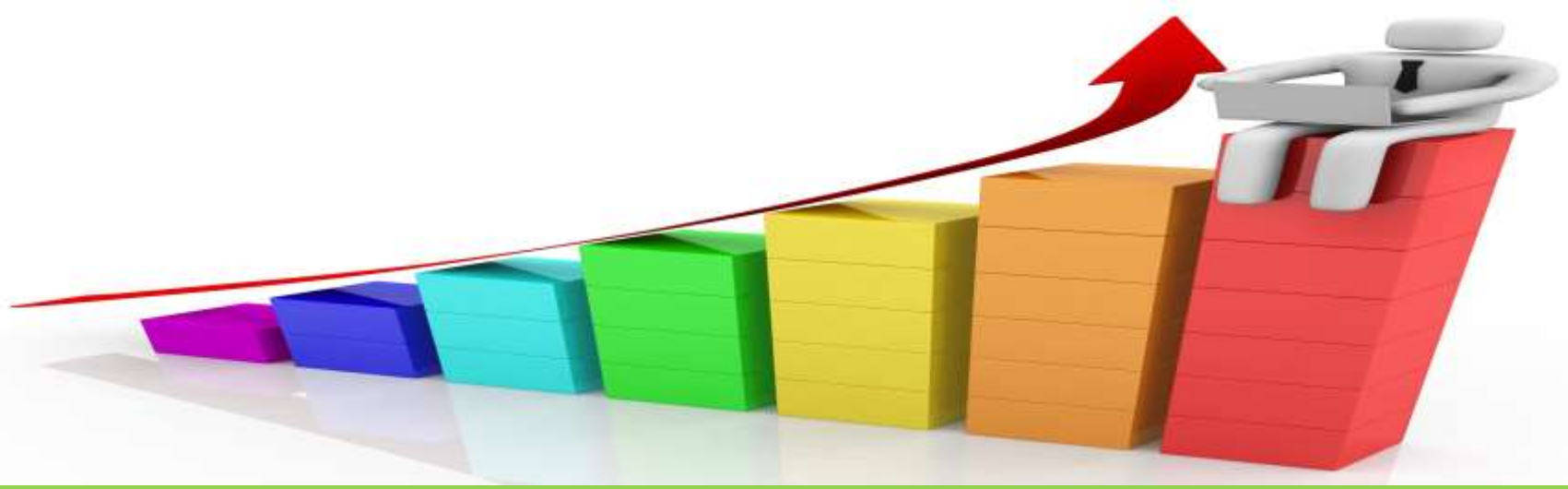
MODULE: 3/5

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1. Histogram -Definition
2. Histogram
 - a) Draw histogram
 - b) Read the graph and answer the questions

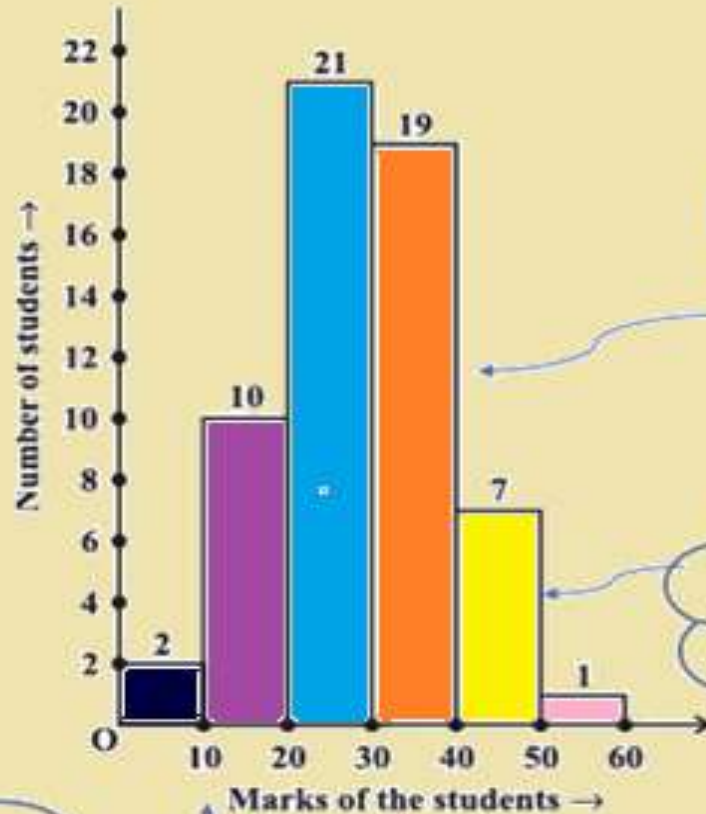


HISTOGRAM

- Grouped data can be presented using histogram.
- Histogram is a type of bar diagram, where the class intervals are shown on the horizontal axis and the heights of the bars show the frequency of the class interval.
- There is no gap between the bars as there is no gap between the class intervals.



HISTOGRAM



Bars of equal width with no gaps in between

Height of the bar represent the number of data items hence the frequency

Class intervals are represented on Horizontal axis



Data Presentation and Analysis

TO DRAW HISTOGRAM

Example : The table below shows the number of hours students watch TV in one week. Make a histogram of the data.

Number of Hours of TV	Frequency
1–3	15
4–6	17
7–9	17

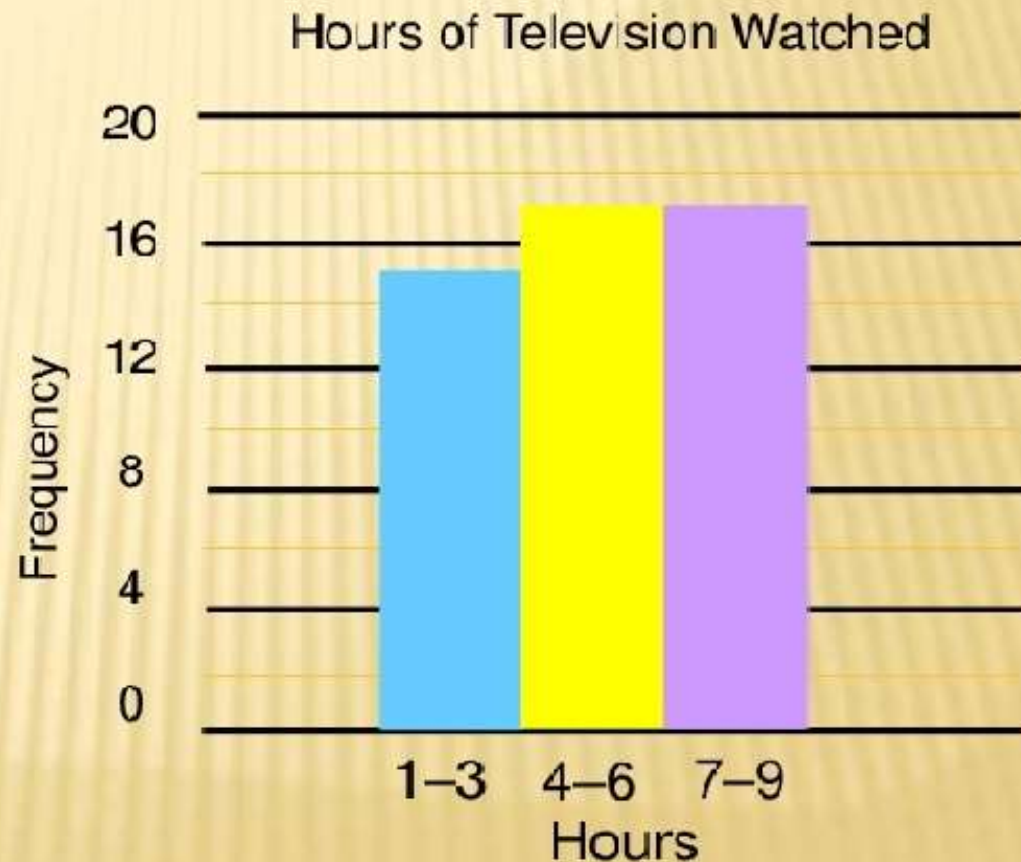
TO DRAW HISTOGRAM



Data Presentation and Analysis

Thus, the histogram of the previous slide data may be presented as given below

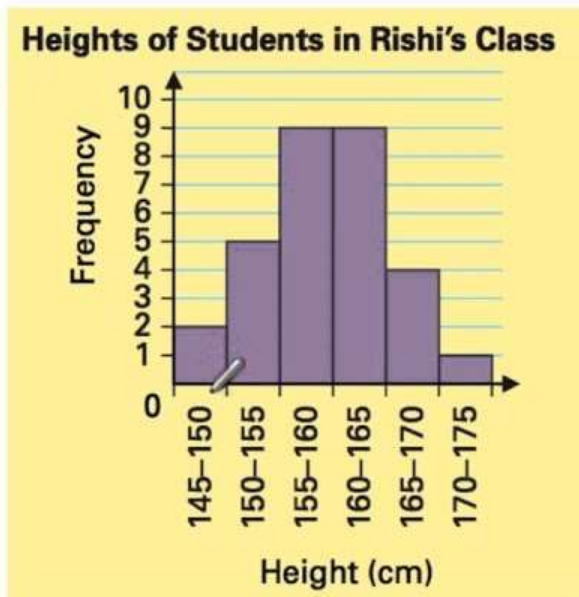
Number of Hours of TV	Frequency
1-3	15
4-6	17
7-9	17



REPRESENT THE GIVEN DATA IN THE FORM OF A HISTOGRAM

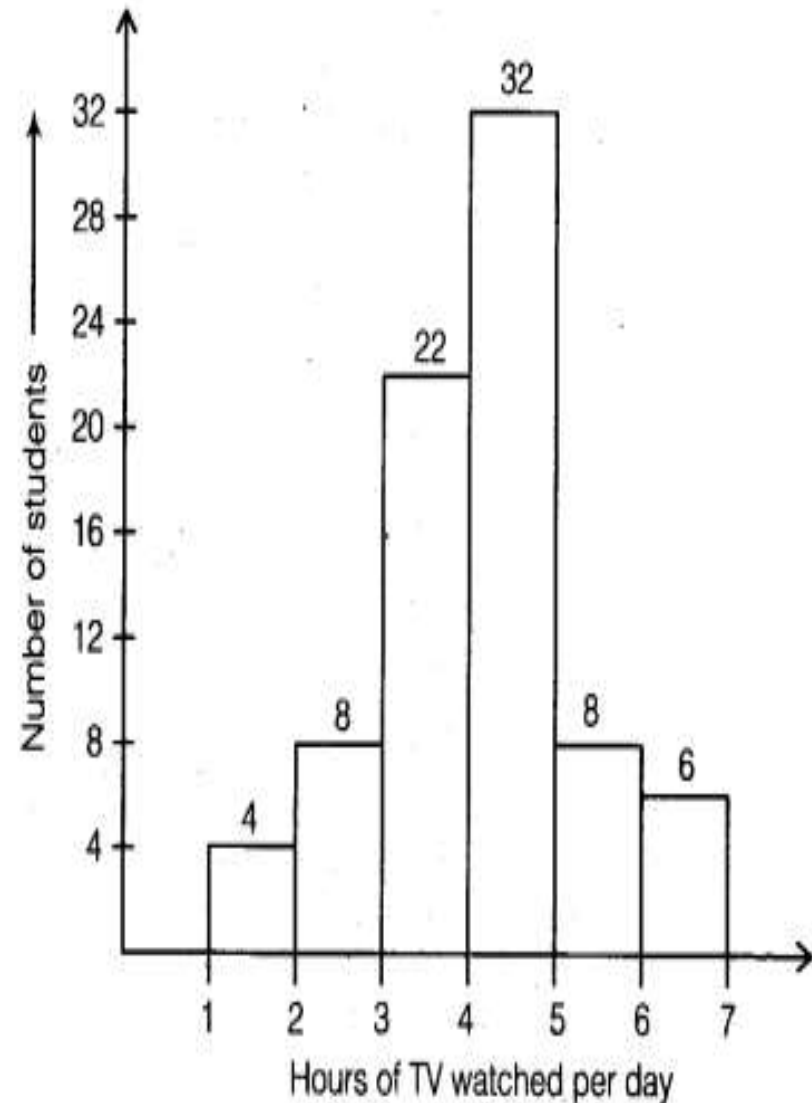
Using a Histogram

Height (cm)	Frequency
145–150	2
150–155	5
155–160	9
160–165	9
165–170	4
170–175	1



Data values that fall at a value where two intervals intersect are usually placed in the higher interval. For example, 155 would usually be placed in the interval 155–160, not in the interval 150–155.

The number of hours for which students of a particular class watched television during holidays is shown through the given graph



(i) For how many hours did the maximum number of students watch TV

A) 32 is the maximum number of students who watched TV for 4 to 5 hours.

(ii) How many students watched TV for less than 4 hours?

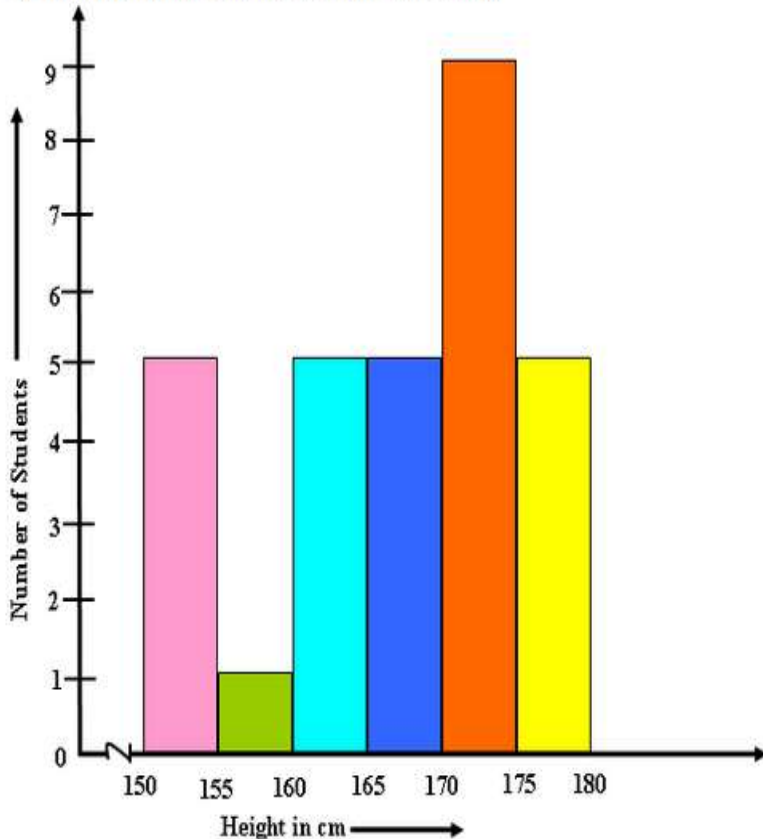
A) $4 + 8 + 22 = 34$ students watched TV for less than 4 hours.

(iii) How many students spent more than 5 hours in watching TV

A) $8 + 6 = 14$ students watched TV for more than 5 hours.

LOOK AT THE HISTOGRAM AND ANSWER THE QUESTIONS

Look at the histogram and answer the following:



1. What is the variable being represented by the histogram? Is the discrete or continuous?
2. How many students are over 170cm tall?
3. How many students are there in all?
4. What is the minimum height possible of the shortest student?
5. What is the minimum height possible of the tallest student?

• ANSWERS:

1. Given histogram depicts heights in cm of students in a class.
2. $9+5 = 14$ students are over 170cm
3. $5+1+5+5+9+5=30$ students
4. The minimum height possible of the shortest student is 150cm
5. The minimum height possible of the tallest student is 175cm



**THANK
YOU!**