

Mathematics

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(Chapter – 5) (Data Handling)
(Class – VIII)

Exercise 5.1

Question 1:

For which of these would you use a histogram to show the data:

- (a) The number of letters for different areas in a postman's bag.
- (b) The height of competitors in an athletics meet.
- (c) The number cassettes produced by 5 companies.
- (d) The number of passengers boarding trains from 7.00 a.m. to 7.00 p.m. at a station.

Give reason for each.

Answer 1:

Since, Histogram is a graphical representation of data, if data represented in manner of class-interval.

Therefore, for case (b) and (d), we would use a histogram to show the data, because in these cases, data can be divided into class-intervals.

In case (b), a group of competitions having different heights in an athletics meet.

In case (d), the number of passengers boarding trains in an interval of one hour at a station.

Question 2:

The shoppers who come to a departmental store are marked as: man (M), woman (W), boy (B) or girl (G). The following list gives the shoppers who came during the first hour in the morning.

W W W G B W W M G G M M W W W W G B M W B G G M W W M M W W W M W B W G M W W
W W G W M M W M W G W M G W M M B G G W.

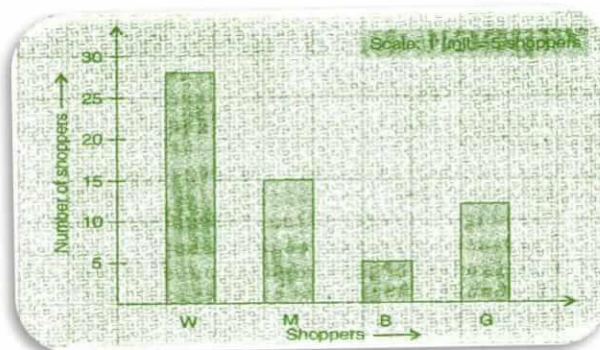
Make a frequency distribution table using tally marks. Draw a bar graph to illustrate it.

Answer 2:

The frequency distribution table is as follows:

Shopper	Tally Marks	Number of shoppers
W		28
M		15
B		5
G		12
	Total	60

The illustration of data by bar-graph is as follows:



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Question 3:

The weekly wages (in ₹) of 30 workers in a factory are:

830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840.

Using tally marks, make a frequency table with intervals as 800 – 810, 810 – 820 and so on.

Answer 3:

The representation of data by frequency distribution table using tally marks is as follows:

Class Intervals	Tally Marks	Frequency
800–810		3
810–820		2
820–830		1
830–840		9
840–850		5
850–860		1
860–870		3
870–880		1
880–890		1
890–900		4
	Total	30

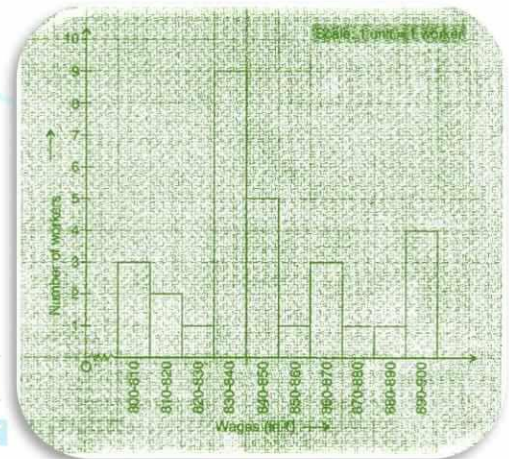
Question 4:

Draw a histogram for the frequency table made for the data in Question 3 and answer the following questions.

- Which group has the maximum number of workers?
- How many workers earn ₹ 850 and more?
- How many workers earn less than ₹ 850?

Answer 4:

- 830 – 840 group has the maximum number of workers.
- 10 workers can earn more than ₹ 850.
- 20 workers earn less than ₹ 850.



Question 5:

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

Answer the following:

- For how many hours did the maximum number of students watch T.V.?
- How many students watched TV for less than 4 hours?
- How many students spent more than 5 hours in watching TV?

Answer 5:

- The maximum number of students watched T.V. for 4 – 5 hours.
- 34 students watched T.V. for less than 4 hours.
- 14 students spent more than 5 hours in watching T.V.

