Board – CBSE	Class – 8th	Topic – Data Handling 5.1

Q.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 of cassettes produced by 5 companies.

(d) The number of passengers boarding trains from 7:00 a.m. to 7:00 p.m., at a railway station.

Give reasons for each.

Sol: As we know histogram is a graphical representation of data, It is used to summarize discrete or continuous data that are measured on an interval scale.

Since the cases mentioned in options (b) and (d) can be divided into class intervals, a histogram can be used to show the data.

Similarly, since the cases mentioned in options (a) and (c) cannot be divided into class intervals, a histogram cannot be used to represent the data.

Q.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.

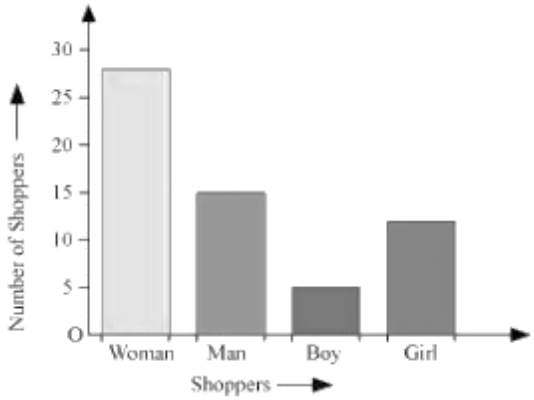
W W W G B W W M G G M M W W W W G B M W B G G M W W M M W W W M W B W G M W W W W G W M M W M W G W M G W M M B G G W.

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

Sol: We tabulate the data in the frequency distribution table:

Shopper	Tally marks	Number
W	𝍸 𝍸 𝍸 𝍸 𝍸 |||	28
M	𝍸 𝍸 𝍸	15
B	𝍸	5
G	𝍸 𝍸 ||	12

Now, to illustrate the data by drawing a bar graph:



Q.3 The weekly wages (in Rs) 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 - 310, 810 - 820, and so on.

Sol: We represented the data by frequency distribution table using tally marks:

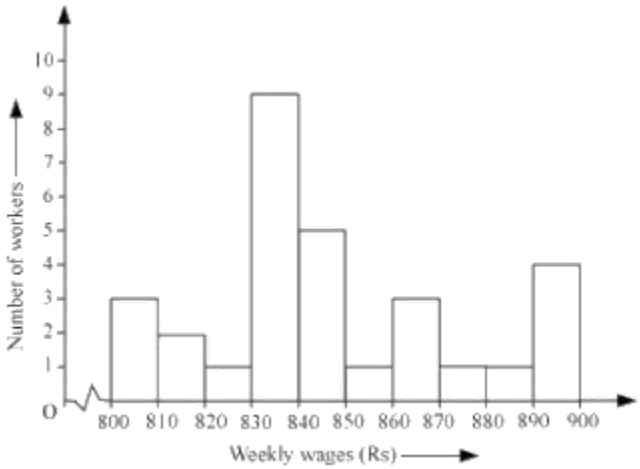
Interval	Tally marks	Frequency
800 – 810	|||	3
810 – 820	||	2
820 – 830	|	1
830 – 840	~~|||||~~ ||||	9
840 – 850	~~|||||~~	5
850 – 860	|	1
860 – 870	|||	3
870 – 880	|	1
880 – 890	|	1
890 – 900	||||	4

Q.4 Draw a histogram for the frequency table made for the data in Question 3, and answer the following questions.

(i) Which group has the maximum number of workers?

(ii) How many workers earn Rs 850 and more?

(iii) How many workers earn less than Rs 850?



Sol: (i) 830 - 840 groups have the maximum number of workers.

(ii) 10 workers earn more than Rs 850.

(iii) 20 workers earn less than Rs 850.

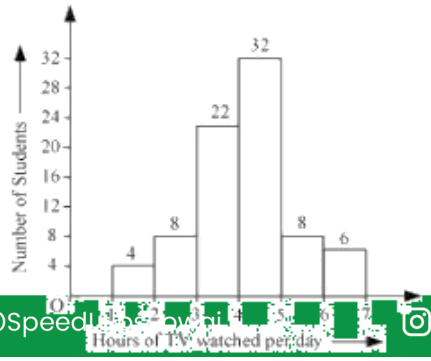
Q.5 The number of hours for which students of a particular class watched television during holidays is shown through the given graph. We draw the histogram for the above frequency table:

Answer the following.

(i) For how many hours did the maximum number of students watch T.V.?

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

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



Sol: (i) The maximum number of students watched T.V. for 4 – 5 hours.

(ii) 34 students watched TV for less than 4 hours.

(iii) 14 students spent more than 5 hours watching TV.