NCERT solutions for class 8 maths chapter 5.1 Data Handling

Q1. 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.

Ans. 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.

Q2. 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.

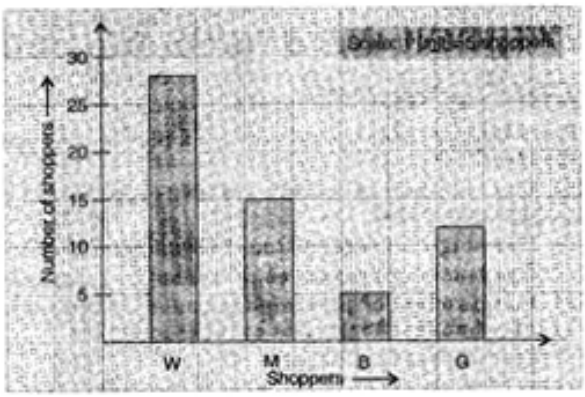
W WW G B W W M G G M M W WWW G B M W B G G M W W M M W WW M W B W G M W WWW G W M M W M W G W M G W M M B G G W.

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

Ans. The frequency distribution table is as follows:

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

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



Q3. 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.

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

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

Q4. Draw a histogram for the frequency table made for the data in Question 3 and answer the following questions.

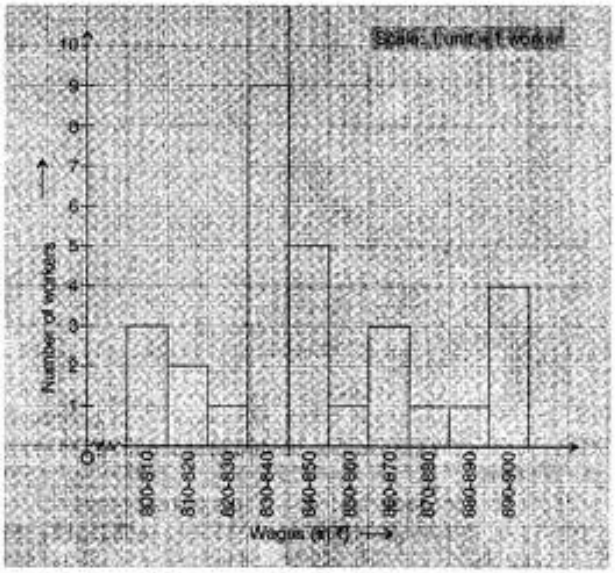
(i) How many workers earn ` 850 and more?

(ii) How many workers earn less than ` 850?

Ans. 830 – 840 group has the maximum number of workers.

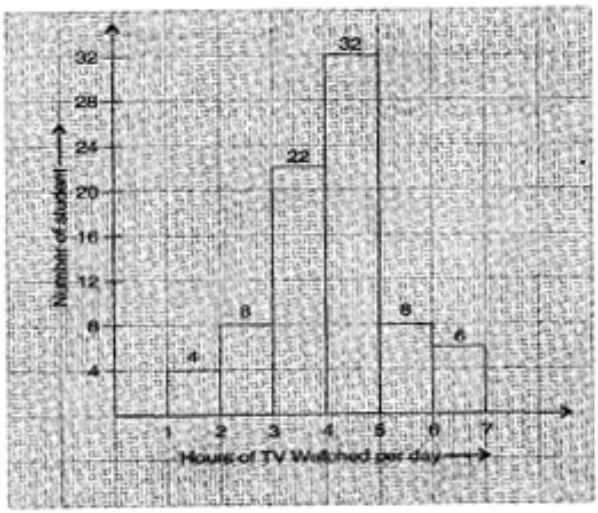
(i) 10 workers can earn more than ` 850.

(ii) 20 workers earn less than ` 850.



Q5. 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 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 in watching TV?

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

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

(iii) 14 students spent more than 5 hours in watching T.V.

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