Class Exercise 10

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Visual Presentation of Data

Q1. Arrange the following data in ascending order (order of magnitude i.e. from smallest to largest).

(a) 7, 2, 10, 14, 0, 6, 15, 24, 8, 3 0, 2, 3, 6, 7, 8, 10, 14, 15, 24

(b) 4.6, 8.1, 2.0, 3.5, 0.7, 9.3, 1.4, 0.8 0.7, 0.8, 1.4, 2.0, 3.5, 4.6, 8.1, 9.3

Q2. Arrange the following data in descending order.

(a) 14, 2, 0, 10, 6, 1, 22, 13, 28, 4, 8, 16 28, 22, 16, 14, 13, 10, 8, 6, 4, 2, 1, 0

(b) 1.2, 3.5, 0.1, 0.3, 2.4, 8.6, 5.0, 3.7, 0.7, 0.9 0.9, 0.7 0.3 8.6, 5.0, 3.7, 3.5, 2.4, 1.2, 0.1

Q3. Construct the frequency table for each of the following.

(a) 4, 3, 6, 5, 2, 4, 3, 3, 6, 4, 2, 3, 2, 2, 3, 3, 4, 5, 6, 4, 2, 3, 4

(b) 6, 7, 5, 4, 5, 6, 6, 8, 7, 9, 6, 5, 6, 7, 7, 8, 9, 4, 6, 7, 6, 5

(a)

Number	frequency
2	5
3	7
4	6
5	2
6	3

(b)

Number	frequency
4	2
5	4
6	7
7	5
8	2
9	2

Q4. The marks obtained out of 25 by 30 students of a class in the examination are given below.

20, 6, 23, 19, 9, 14, 15, 3, 1, 12, 10, 20, 13, 3, 17, 10, 11, 6, 21, 9, 6, 10, 9, 4, 5, 1, 5, 11, 7, 24

Represent the above data as a grouped data taking the class interval 0 – 5

Marks	Students / frequency
0 - 5	5
5 - 10	9
10 - 15	8
15 - 20	2
25 - 30	5

(1, 1, 3, 3, 4, 5, 5)
(6, 6, 6, 7, 9, 9, 9, 10, 10, 10)
(10, 10, 10, 11, 11, 12, 13, 14
15, 17, 19
20, 20, 21, 23, 24,

Q5. These are the numbers of newspapers sold at a local shop over the last 10 days:
22, 20, 18, 23, 20, 25, 22, 20, 18, 20

(a) Find the frequency distribution.

(b) Find the cumulative frequency.

(c) Find the grouped frequency distribution if they are grouped in 5s.

(d) Draw the histogram from grouped frequency distribution.
(bar chart)

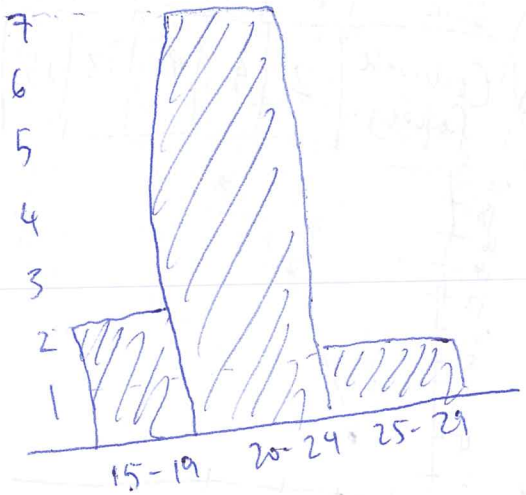
Papers sold

	18	19	20	21	22	23	24	25
frequency	2	2	4	0	2	1	0	1
CF	2	4	8	8	10			

Papers sold

x	15-19	20-24	25-29
f	2	7	1

f = y axis



Q6. A team scored the following numbers of goals in recent games
0, 0, 2, 3, 1, 2, 1, 3, 2, 3, 4, 5, 4, 2, 2, 3, 5, 5

(a) Find the frequency distribution.
(b) Find the grouped frequency distribution if they are grouped in 2s.
(c) Draw the Ogive curve

(a)

Score	0	1	2	3	4	5
Frequency	2	2	5	4	2	3

(b)

Grouped	0-1	~~1-2~~	2-3	~~3-4~~	4-5
Frequency	4		9		5

Score	0	1	2	3	4	5
Cumulative frequency	2	4	9	13	15	18

Co-ordinates

Ogive - class boundaries
Cumulative frequencies

X = upper class
Y = cumulative frequency

Grouped	Frequency	class boundaries		CF
0-1	4	-0.5	1.5	4
2-3	9	1.5	3.5	13
4-5	5	3.5	5.5	18

upper class

(1.5, 4)
(3.5, 13)
(5.5, 18)
X, Y

(c)