Revision Worksheet: 1 Level 7 Mathematics- 2nd Term

Chapter : 17 Averages of Statistical Data

Q1) The Score of 8 students in an English test are 79, 58, 73, 66, 50, 89, 91 and 58.

Find their mean score.

Solution:

$$\text{Mean Score} = \frac{\text{Sum of the scores of students in English test}}{\text{Number of students}}$$

$$= \frac{79 + 58 + 73 + 66 + 50 + 89 + 91 + 58}{8}$$

$$= 70.5$$

Q2) The Mean of 44, 47, y, 58 and 55 is 52. Find the value of y.

Solution:

$$\text{Mean} = \frac{\text{Sum}}{\text{Number}}$$

$$52 = \frac{44+47+y+58+55}{5}$$

$$44 + 47 + y + 58 + 55 = 52 * 5$$

$$204 + y = 260$$

$$Y = 260 - 204 = 56$$

Q3) Find the Median of the following sets of Data.

32, 15, 20, 15, 25, 12 = 12, 15, 15, 20, 25, 32

Solution: Median;

$$\text{Middle position} = \frac{n + 1}{2}$$

$= (6 + 1)/2 = 7/2 = 3.5^{th}$ position

Median = Data in the 3.5^{th} position (3^{rd} position= 15

4^{th} position = 20)

$= (20 + 15)/2 = 35/2 = 17.5$

Median = (4+5)/2 = 9/2 = 4.5

Q4) The Stem and Leaf diagram represents the volumes, in ml, of chemical solution in 15 bottles.

Key: 3|1 means 31

Stem	Leaf
1	9 9
2	0 4 7 8
3	1 2 2 2 6
4	0 5 5
5	5

Solution: Total number of data = 15(odd)

Middle position = $(15 + 1)/2 = 16/2 = 8^{th}$ position

Median = data in the 8^{th} position

Median = 32 ml

Q5) The heights, in cm of 18 students are recorded.

Height(cm)	152	154	156	158	160
Number of Students	2	2	5	1	8

Find the median height of the Students.

Solution:

Total number of data = 18 (even)

Middle position = (18+1)/2 = 9.5th position

Median height = mean of the data in the 9th and the 10th position

= (156 + 158)/2

= 157 cm

Q6) Find the mode of the following data.

(a) 12, 8, 4, 8, 1, 8, 9, 11, 9, 10, 12, 8

Mode = 8

(b) 15, 22, 17, 19, 22, 17, 29, 24, 17, 15

Mode = 17

(c) 0, 3, 2, 1, 3, 5, 4, 3, 4,2, 1, 2, 0

Mode = 2

Q7) The marks obtained by 40 students out of 50 in a class are given below in the table.

Marks (in $)	42	36	30	45	50
Number of Students	7	10	13	8	2

Find the mode of the above data.

Solution:

Mode = data of highest frequency (highest frequency = 13)

Mode = 30

Q8) The following observations are arranged in ascending order. The median of the data is 25 find the value of x.

17, x, 24, x + 7, 35, 36, 46

Solution:

Middle position = (7 + 1)/2 = 8/2 = 4^{th} position

Median = data in the fourth position

25 = x + 7

X + 7 = 25

X = 25 - 7

X = 18