Q1) Find the range of heights of any 10 students of your class.

→ Let, the height's (in cm) of 10 students of your class be.

150, 151, 147, 149, 150, 152, 149, 143, 146, 152

The heights in ascending order, we get

143, 146, 147, 149, 149, 150, 150, 151, 152, 152

∴ Range of the height of Students = highest observation − lowest observation

= 152 − 143

= 9 cm

∴ Range of height of 10 students = 9 cm.

Q2) Organise the following marks in a class assessment, in a tabular form

4, 6, 7, 5, 3, 5, 4, 5, 2, 6, 2, 5, 1, 9, 6, 5, 8, 4, 6, 7

(i) The frequency table is shown below

Marks	Tally marks	No. of Students (frequency)
1		1
2		2
3		1
4		3
5		5
6		4
7		2
8		1
9		1
		20

(i) The highest number = 9

(ii) The lowest number = 1

(iii) Range = highest − lowest
= 9 − 1
= 8

∴ The range of data is 8

(iv) A.M = $\frac{\text{sum of marks}}{\text{No. of students}}$

= $\frac{100}{20}$

= 5

∴ Arithmetic mean of the data is 5

First five whole numbers are 0, 1, 2, 3, 4

∴ Mean = $\frac{0+1+2+3+4}{5}$

= $\frac{10}{5}$

= 2

∴ Mean of first five whole numbers is 2

∴ Mean score = $\frac{400}{8}$ = 50

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Q.5)

(i) A's average number of points scored per game = $\frac{\text{sum of all observation}}{\text{Total no. of observation}}$

$$= \frac{14+16+10+10}{4}$$

$$= \frac{50}{4}$$

$$= 12.5$$

$\therefore$ Average = $\boxed{12.5}$

(ii) To find the mean number of points per game for C, we divide the total points by 3, because C did not play 3rd game.

C's average = $\frac{\text{Sum of all observation}}{\text{Total no. of observation}}$

$$= \frac{8+11+13}{3}$$

$$= \frac{32}{3}$$

Average = $\boxed{10.67}$

(iii) Mean = $\frac{\text{Sum of}}{\text{Total}}$

$$= \frac{0+8+6+4}{4}$$

$$= \frac{18}{4}$$

$$= \boxed{4.5}$$

(iv) by compairing mean of A, B & C players A is the best performer.

Q.8)

on arranging the data in ascending order, we get

Day	Fri	Tue	Sat	Wed	Sun	mon	Thurs
Rainfall	20.5	12.2	5.5	2.1	1.0	0.0	0.0

(i) highest rainfall = 20.5 mm
lowest rainfall = 0.0 mm

∴ Range of rainfall = highest - lowest
= 20.5 - 0.0
= 20.5 mm

(ii) Mean rainfall = $\frac{\text{Total rainfall}}{\text{No. of days}}$

$= \frac{20.5+12.2+5.5+2.1+1.0+0.0+0.0}{7}$

$= \frac{41.3}{7}$

= 5.9 mm

(iii) Saturday, Wednesday, Sunday, monday, Thursday, rainfall is less than mean rainfall
Hence, on 5 days rainfall was less.

than mean rainfall.

Q.9) Arranging data in ascending order, we get,

128, 132, 135, 139, 141, 143, 146, 149, 150, 151

(i) The height of tallest girl = 151 cm

(ii) The height of shortest girl = 128 cm

(iii) Range = highest − lowest
= 151 − 128
= 23

(iv) Mean height of the girls = $\frac{\text{Sum of height}}{\text{Total no. of height}}$

$$= \frac{128+132+135+139+141+143+146+149+150+151}{10}$$

$$= \frac{1414}{10}$$

$$= 141.4$$

∴ Mean height of the girls is 141.4 cm

(v) 5 girls have ~~height~~ more height than the mean height
i.e. 143, 146, 149, 150, 151 cm