

Solution Mean =  $\frac{\sum x}{N}$

$\bar{x} = \frac{\sum x}{N}$

$= \frac{208}{12} = 24.83$

Mean = 24.83 Ans

S. No of Students	Marks obtained
1	60
2	65
3	54
4	72
5	81
6	87
7	45
8	49
9	58
10	79
$N = 10$	$\sum x = 650$

Solution  $\Rightarrow \bar{x} = \frac{\sum x}{N}$

$\frac{650}{10} = 65$  Ans

(3)	Rainfall (in mm)	M	days (P)	PM
	0-10	5	2	10
	10-20	15	7	105
	20-30	25	10	250
	30-40	35	15	525
	40-50	45	20	900
	50-60	55	16	880
	60-70	65	6	390
	70-80	75	4	300
			$N = 80$	$\Sigma x = 3360$

$$\text{Mean} = \bar{x} = \frac{\Sigma x}{N}$$

$$\frac{3360}{80} = 42 \text{ Ans}$$

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1. Marks obtained by ten students in a class are shown in the following table. Calculate the arithmetic mean or average.

S.No of students	1	2	3	4	5	6	7	8	9	10
Marks obtained	60	65	54	72	81	87	45	49	58	79

S.No of students	Marks obtained
1	60
2	65
3	54
4	72
5	81
6	87
7	45
8	49
9	58
10	79
N=10	$\Sigma x = 650$

$$\text{Mean} = \frac{\Sigma x}{N}$$

$$= \frac{650}{10} = 65 = \text{Ans}$$

$$\text{mean} = 65 \text{ Ans}$$

2) Find the arithmetic mean of the data given in the following frequency distribution table.

Rainfall (in mm)	0-10	10-20	20-30	30-40	40-50
No. of days	2	7	10	15	20

50-60	60-70	70-80
16	6	4

Rainfall (in mm)	days (No)	M	f.M
0 - 10	2	5	10
10 - 20	7	15	105
20 - 30	10	25	250
30 - 40	15	35	525
40 - 50	20	45	900
50 - 60	16	55	880
60 - 70	6	65	390
70 - 80	4	75	300
	N = 8		$\Sigma X = 3,360$

$$\text{Mean} = \frac{\Sigma X}{N}$$

$$= \frac{3,360}{8} = 420 \text{ Ans}$$

(2) X	f	M	fM	dX = X - A	f dX
0-10	2	5	10	5-5=0	0
10-20	7	15	105	15-5=10	70
20-30	10	25	250	25-5=20	200
30-40	15	35	525	35-5=30	450
40-50	20	45	900	45-5=40	800
50-60	16	55	880	55-5=50	800
60-70	6	65	390	65-5=60	360
70-80	4	75	300	75-5=70	280
	80		3360		2960

$$\text{Long Method} = \bar{x} = \frac{\sum fM}{N}$$

$$\bar{x} = \frac{42}{80}$$

$$\bar{x} = 42 \text{ Ans}$$

$$\text{Short Method} = \bar{x} = A + \frac{\sum f dX}{N}$$

$$\bar{x} = 5 + \frac{37}{80}$$

$$\bar{x} = 5 + 37$$

$$\bar{x} = 42 \text{ Ans}$$

Students	Marks obtained
1	60
2	65
3	54
4	70
5	81
6	83
7	45
8	49
9	58
10	79
$N = 10$	$\Sigma X = 650$

$$\text{Mean} = \frac{\Sigma X}{N} = \frac{650}{10} = 65 \text{ Ans}$$