Shiva
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$319 - 216 = 103$

Exercise 37.2

1. An ordanary dice was rolled 60 times. The results are shown in the table below. Calculate the mean, median, mode & range of the scores.

Score	1	2	3	4	5	6
Frequency	12	11	8	12	7	10
score x freqy	12	22	24	48	35	60

Soln

Total frequency = $12+11+8+12+7+10 = 60 = N$

$$\text{Mean} = \frac{12+22+24+48+35+60}{60} = 201/60$$

$$= 3.35$$

Median

$N = 60 \quad \therefore \frac{N30 \text{ \& } N31}{2}$

1,1,1,1,1,1,1,1,1,1, 2,2,2,2,2,2,2,2,2,2, 3,3,3,3,3,3,3,3, 4,4,4,4,
4,4,4,4,4,4,4,4, 5,5,5,5,5,5,5,5, 6,6,6,6,6,6,6,6,6,6

$N_{30} = 3, \quad N_{31} = 3$

$\therefore$ Median $= \frac{3+3}{2} = 3$

Mode

The number 1 & 4 occurs maximum times. Hence both 1 & 4 are modes.

Range = Highest - Lowest
= 6 - 1 = 5

2. Two dice were thrown 100 times. Each time their combined score was recorded. Below is a table of the results. Calculate the mean score.

SCORE	2	3	4	5	6	7	8	9	10	11	12
Frequency	5	6	7	9	14	16	13	11	9	7	3
Score x Frequency	10	18	28	45	84	112	104	99	90	77	36

Soln N = 100

$$\text{Mean} = \frac{10+18+28+45+84+112+104+99+90+77+36}{100}$$

$$= 703/100 = 7.03$$

3. Sixty flowering bushes are planted. At their flowering peak, the number of flowers per bush is counted & recorded. The results are shown in table.

Flowers per bush	0	1	2	3	4	5	6	7	8
Frequency	0	0	0	6	4	6	10	16	18
Flowers x Frequency	0	0	0	18	16	30	60	102	144

a. Calculate the mean, median, mode & range of the number of flowers/bush.

b. Which of the mean, median & mode would be most useful when advertising the bush to potential buyers?