

Exercise 37

1. Find the mean, median, mode & range for each set of data.

A hockey team 15 matches. Below is a list of the numbers of goals scored in these matches.

1, 0, 2, 4, 0, 1, 1, 1, 2, 5, 3, 0, 1, 2, 2.

solⁿ. Arranging the list in increasing order.

0, 0, 0, 1, 1, 1, 1, 2, 2, 2, 2, 3, 4, 5

$$\text{Mean} = \frac{\text{Sum of all the items}}{\text{total items}}$$

$$= \frac{0+0+0+1+1+1+1+1+2+2+2+2+3+4+5}{15}$$

$$M = \frac{25}{15} = \frac{5}{3} = 1.66$$

Median = middle value

no. of items = 15, hence $n = \text{odd}$
 $\therefore n = 8$

\therefore Median = 0, 0, 0, 1, 1, 1, 2, 2, 2, 3, 4, 5

Median = 2

Mode

0 = 3, 1 = 5, 2 = 4, 3 = 1, 4 = 1, 5 = 1

Since 1 occurs five times hence mode = 1

Range = 5 - 0 = 5

2. The total scores when two dice are thrown 20 times

7, 4, 5, 7, 3, 2, 8, 6, 8, 7, 6, 5, 11, 9, 7, 3, 8, 7, 6, 5

solⁿ. Arranging the data in increasing order

2, 3, 3, 4, 5, 5, 5, 6, 6, 6, 7, 7, 7, 7, 8, 8, 8, 9, 11