



Exercise 8.5



Multiple choice questions

- Which of the following is not a measure of dispersion?
(1) Range (2) Standard deviation
(3) Arithmetic mean (4) Variance
- The range of the data 8, 8, 8, 8, 8, ... 8 is
(1) 0 (2) 1 (3) 8 (4) 3
- The sum of all deviations of the data from its mean is
(1) Always positive (2) always negative (3) zero (4) non-zero integer
- The mean of 100 observations is 40 and their standard deviation is 3. The sum of squares of all deviations is
(1) 40000 (2) 160900 (3) 160000 (4) 30000
- Variance of first 20 natural numbers is
(1) 32.25 (2) 44.25 (3) 33.25 (4) 30
- The standard deviation of a data is 3. If each value is multiplied by 5 then the new variance is
(1) 3 (2) 15 (3) 5 (4) 225
- If the standard deviation of x, y, z is p then the standard deviation of $3x + 5, 3y + 5, 3z + 5$ is
(1) $3p + 5$ (2) $3p$ (3) $p + 5$ (4) $9p + 15$
- If the mean and coefficient of variation of a data are 4 and 87.5% then the standard deviation is
(1) 3.5 (2) 3 (3) 4.5 (4) 2.5
- Which of the following is incorrect?
(1) $P(A) > 1$ (2) $0 \leq P(A) \leq 1$ (3) $P(\phi) = 0$ (4) $P(A) + P(\bar{A}) = 1$
- The probability a red marble selected at random from a jar containing p red, q blue and r green marbles is
(1) $\frac{q}{p+q+r}$ (2) $\frac{p}{p+q+r}$ (3) $\frac{p+q}{p+q+r}$ (4) $\frac{p+r}{p+q+r}$
- A page is selected at random from a book. The probability that the digit at units place of the page number chosen is less than 7 is
(1) $\frac{3}{10}$ (2) $\frac{7}{10}$ (3) $\frac{3}{9}$ (4) $\frac{7}{9}$
- The probability of getting a job for a person is $\frac{x}{3}$. If the probability of not getting the job is $\frac{2}{3}$ then the value of x is
(1) 2 (2) 1 (3) 3 (4) 1.5