



11. If a, b, c form an A.P. with common difference d , then the value of $a - 2b - c$ is equal to
(A) $2a + 4d$ (B) 0
(C) $-2a - 4d$ (D) $-2a - 3d$
12. If the value of each observation of a statistical data is increased by 3, then the mean of the data
(A) remains unchanged (B) increases by 3
(C) increases by 6 (D) increases by $3n$
13. Probability of happening of an event is denoted by p and probability of non-happening of the event is denoted by q . Relation between p and q is
(A) $p + q = 1$ (B) $p = 1, q = 1$
(C) $p = q - 1$ (D) $p + q + 1 = 0$
14. A girl calculates that the probability of her winning the first prize in a lottery is 0.08. If 6000 tickets are sold, how many tickets has she bought?
(A) 40 (B) 240
(C) 480 (D) 750
15. If α, β are the zeroes of a polynomial $p(x) = x^2 + x - 1$, then $\frac{1}{\alpha} + \frac{1}{\beta}$ equals to
(A) 1 (B) 2
(C) -1 (D) $-\frac{1}{2}$
16. The least positive value of k , for which the quadratic equation $2x^2 + kx - 4 = 0$ has rational roots, is
(A) $\pm 2\sqrt{2}$ (B) 2
(C) ± 2 (D) $\sqrt{2}$
17. $\left[\frac{5}{8} \sec^2 60^\circ - \tan^2 60^\circ + \cos^2 45^\circ \right]$ is equal to
(A) $-\frac{5}{3}$ (B) $-\frac{1}{2}$
(C) 0 (D) $-\frac{1}{4}$
18. Curved surface area of a cylinder of height 5 cm is 94.2 cm^2 . Radius of the cylinder is (Take $\pi = 3.14$)
(A) 2 cm (B) 3 cm
(C) 2.9 cm (D) 6 cm