

(c) $x^2 + 2bx - (C^2 - b^2) = 0$

(d) $x^2 - 2cx + c^2 - b^2 = 0$

16. Roots of equation $2x^2 + 3x + 7 = 0$ are α and β . The value of $\alpha\beta^{-1} + \beta\alpha^{-1}$ is

- (a) 2
- (b) $7/2$
- (c) $3/7$
- (d) $-19/14$

17. The present age of a man is 8 years more than thrice the sum of the ages of his two grandsons who are twins. After 8 years, his age will be 10 years more than twice the sum of the ages of his grandsons. The age of a man when his grandsons were born was:

- (a) 86 years
- (b) 68 years
- (c) 73 years
- (d) 63 years

18. If $x = \sqrt{2 + \sqrt{2 + \sqrt{2 + \dots}}}$ upto ∞ , then x is ($x > 0$)

- (a) 2
- (b) 4
- (c) 0
- (d) 1

19. The value of $2 + \frac{1}{2 + \frac{1}{2 + \frac{1}{2 + \dots}}}$

- (a) $1 + \sqrt{2}$
- (b) $1 - \sqrt{2}$
- (c) 1
- (d) 2

20. Equation $x^3 + 4x + 5 = 0$ has

- (a) All real roots
- (b) All imaginary roots
- (c) One real & two imaginary roots
- (d) Two real & one imaginary roots

21. A factory produces 200 bulbs for a total cost of Rs. 800 & 400 bulbs for Rs. 1200. The equation of the total cost line is