



CBSE CLASS – X

MATH SOLUTIONS

(CBSE DELHI)

Code No. (30/1/2)

Series LRH/1

SECTION – B (Set-2)

11. If $\sqrt{3}$ and $-\sqrt{3}$ are two zeroes of the polynomial $x^3 - 5x^2 - 3x + 15$, find its third zero.

Ans. 5

12. If all the sides of a parallelogram touch a circle, show that the parallelogram is a rhombus.

Ans. Proof

13. Without using trigonometric tables, find the value of the following expression:

$$\frac{\sec(90^\circ - \theta) \cdot \operatorname{cosec} \theta - \tan(90^\circ - \theta) \cot \theta + \cos^2 25^\circ + \cos^2 65^\circ}{3 \tan 27^\circ \cdot \tan 63^\circ}$$

OR

Find the value of $\operatorname{cosec} 30^\circ$, geometrically.

Ans. $\frac{2}{3}$

OR

2

14. In an A.P., first term is 2, the last term is 29 and sum of the terms is 155. Find the common difference of the A.P.

Ans. Common difference, $d = 3$

15. Find the value of k for which the following pair of linear equation have infinitely many solutions:

$$2x + 3y = 7; (k - 1)x + (k + 2)y = 3k$$

Ans. $k = 7$

Set 3

11. If $\sqrt{5}$ and $-\sqrt{5}$ are two zeroes of the polynomial $x^3 + 3x^2 - 5x - 15$, find its third zero.

Ans. -3