

Class – 12th

Chapter-5

Subject Maths

Worksheet-20

Inverse of a Matrix and Linear Equations

1. Find the area of the triangle whose vertices are A (2, 3), B (-5, 4) and C (4, 3)
2. If points (x, -2), (5, 2), (8, 8) are collinear then find the value of x.
3. Prove that [bc, a(b + c)], [ca, b(c + a)] and [ab, c(a + b)] are collinear.
4. Find the equation of line joining the points A(4, 3) and B(-5, 2) also find the value of k if the area of the triangle ABC is 2 Sq. units where, C(k, 0).
5. If the solution of two below given equation is possible then solve using the Cramer's rule.

(i) $2x - 3y = 3$

$2x + 3y = 9$

(ii) $x + 2y = 5$

$2x + 4y = 10$

6. Prove that the system of equations is inconsistent with no solution.

$$x + y + z = 2$$

$$x + 2y + 3z = 5$$

$$2x + 3y + 4z = 11.$$