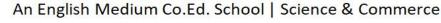


## IREE ACA





W: www.vsajaipur.com | E: vsajaipur@gmail.com M.: +91 9460356652, 8058999828

Add.: 84, Krishna Vihar, Behind Narayan Niwas, Gopalpura Bypass, Jaipur - 302015







Class - 12th

## **Chapter-5**

## **Subject Maths**

## Worksheet-23

Inverse of a Matrix and Linear Equations

1. Solve the following system of equations using Cramer's rule.

(i) 
$$2x + 3y = 9$$

(ii) 
$$2x-7y-13=0$$

$$3x - 2y = 7$$

$$3x - 2y = 7$$
  $5x + 6y - 9 = 0$ 

2. Prove that the following system of equations are inconstent:

(i) 
$$3x + y + 2z = 3$$

(ii) 
$$x + 6y + 11 = 0$$

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

$$3x + 20y - 6z + 3 = 0$$

$$x - 2y - z = 1$$

$$6y - 18z + 1 = 0$$

3. Solve the equations using Cramer's rule:

(i) 
$$x + 2y + 4z = 16$$

(ii) 
$$2x + y - z = 0$$

$$4x + 3y - 2z = 5$$

$$x-y+z=6$$

$$3x - 5y + z = 4$$

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

4. Solve the equations using determinants:

$$\frac{2}{x} + \frac{3}{y} + \frac{10}{z} = 4$$

$$\frac{4}{x} - \frac{6}{y} + \frac{5}{z} = 1$$

$$\frac{6}{x} + \frac{9}{y} - \frac{20}{z} = 2$$

5. Solve the equations using matrix method:

(i) 
$$x + y - z = 1$$

(ii) 
$$6x-12y+25z=4$$

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

$$4x + 15y - 20z = 3$$

$$x - y - z = -1$$

$$2x + 18y + 15z = 10$$