PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

ALGEBRAIC METHOD TO SOLVE LINEAR EQUATION

OF TWO VARIABLE

EXERCISE

Q.1 Solve the following pair of linear equations by the substitution method :

(i) $7x - 15y = 2$ $x + 2y = 3$

(ii) $2x + 3y = 9$ $4x + 6y = 18$

(iii) $x + 2y = 5$ $2x + 3y = 8$

(iv) $0.2x + 0.3y = 1.30.$ $4x + 0.5y = 2.3$

(v) $x + 2y = -1$ $2x - 3y = 12$

(vi) $3x - 5y + 1 = 0$ $x - y + 1 = 0$

Q.2 Solve the following systems of equations,

(i) $\frac{15}{u} + \frac{2}{v} = 17$ $\frac{1}{u} + \frac{1}{v} = \frac{36}{5}$

(ii) $\frac{11}{v} - \frac{7}{u} = 1$ $\frac{9}{v} - \frac{4}{u} = 6$

Q.3 Solve $2x + 3y = 11$ and $2x - 4y = -24$ and hence find the value of 'm' for which $y = mx + 3$.

ANSWER KEY

1. (i) $x = \frac{49}{29}, \quad y = \frac{19}{29}$

(ii) $x = 3,\ y = 1; \qquad x = 0, y = 3$ ....

(iii) $x = 1, \qquad y = 2$

(iv) $x = 2, \qquad y = 3$

(v) $x = 3, \qquad y = -2$

(vi) $x = -2, \quad y = -1$

2. (i) $u = 5, \qquad v = 1/7$

(ii) $u = \frac{1}{3}\ \nu = \frac{1}{2},$

3. $m = -1$