

3. PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

1 MARK QUESTIONS

Q1. $x + y = 1$ and $2x + y = x + 2$ represents

- (a) parallel lines (b) perpendicular lines
(c) intersecting lines (d) coincident lines.

Q2. Pair of linear equations, $x = y$ and $x - 2 = y - 2$ represents

- (a) parallel lines (b) perpendicular lines
(c) intersecting lines (d) coincident lines.

Q3. For what value (s) of a, the system of linear equations $2x + 3y = 7$ and $(a - 1)x + (a + 1)y = 3a + 1$ represent parallel lines?

Q4. Write the value of k for which of the system of equations $x + ky = 0$, $2x - y = 0$ has unique solution.

Q5. For what values (s) of a, the system of linear equations $2x + 3y = 7$ and $(a - 1)x + (a + 1)y = 3a + 1$ represent parallel lines? OR Write the value of k for which the system of equations $x + ky = 0$, $2x - y = 0$ has unique solution.

Q6. The pair of equations $x = 0$ and $x = 3$ has

- (a) only one solution (b) two solutions
(c) no solutions (d) infinitely many solutions

Q7. If α and β are the zeros of polynomial $3x^2 + 4x + 2$, then find $\alpha\beta^2 + \beta\alpha^2$

Q8. If α and β are the zeros of polynomial $f(x) = x^2 - 5x + k$ such that $\alpha - \beta = 1$, then find the value of $4k$.

Q9. The pair of linear equations $x + 2y = 5$ and $7x + 3y = 13$ has unique solutions

- (a) $x = 1, y = 2$ (b) $x = 2, y = 1$
(c) $x = 3, y = 2$ (d) $x = 4, y = 1$

Q10. What would be the value of λ , for the given equations to have infinitely many solutions?

$$5x + \lambda y = 4 \text{ and } 15x + 3y = 12.$$

ANSWERS

Q1. a Q2. d Q3. a = 5 Q4. Q5. $k \neq -\frac{1}{2}$

Q6. c Q7. $-\frac{8}{9}$ Q8. 24 Q9. a Q10. 1