

CHAPTER-3 | Pair of Linear Equations in Two Variables

QUIZ PART-04

1. The system $x + y = 5$ and $2x + 2y = 10$ is:

- A. Consistent and dependent
- B. Inconsistent
- C. Parallel
- D. Coincident (A)

Explanation: The second equation is a multiple of the first, so they are dependent.

2. The system $5x - 4y + 8 = 0$ and $7x + 6y - 9 = 0$ are:

- A. Parallel
- B. Coincident
- C. Intersecting
- D. None (A)

Explanation: The lines are parallel as their slopes do not match.

3. $9x + 3y + 12 = 0$ and $18x + 6y + 24 = 0$ are:

- A. Coincident
- B. Parallel
- C. Intersecting
- D. None (A)

Explanation: These equations represent the same line (coincident).

4. The system $6x - 3y + 10 = 0$ and $2x - y + 9 = 0$ is:

- A. Consistent
- B. Inconsistent
- C. Parallel
- D. Coincident (A)

Explanation: The lines intersect at one point, so the system is consistent.

5. The system $3x + 2y = 6$ and $x + y = 3$ has:

- A. Infinite solutions
- B. One solution
- C. No solution
- D. Dependent equations (B)

Explanation: The system has a unique solution.

6. The equation $2x - 3y = 8$ and $4x - 6y = 9$ are:

- A. Consistent
- B. Inconsistent
- C. Dependent
- D. Independent (B)

Explanation: The lines are parallel and don't intersect, so the system is inconsistent.

7. The system $3x + 5y = 7$ and $9x + 10y = 14$ is:

- A. Consistent
- B. Inconsistent
- C. Coincident
- D. Parallel (A)

Explanation: The system has one solution.

8. The system $x + y = 5$ and $2x + y = 6$ has:

- A. Infinite solutions
- B. One solution
- C. No solution
- D. Dependent equations (B)

Explanation: The system has a unique solution $x = 1, y = 4$.

9. Which system is inconsistent?

- A. $x + y = 5, 2x + 2y = 10$
- B. $x + y = 5, 2x + 2y = 8$
- C. $3x + 2y = 5, 2x - 3y = 7$
- D. $x + y = 5, 2x + y = 6$ (B)

Explanation: The second equation doesn't satisfy the system.

10. The system $5x - 3y = 11$ and $-10x + 6y = -22$ is:

- A. Consistent
- B. Inconsistent
- C. Dependent
- D. None (C)

Explanation: The second equation is a multiple of the first, so they are dependent.