

Class 10 Mathematics - Pair of Linear Equations in Two Variables

Name: _____

Date: _____

Advanced Worksheet 2

Questions

1. Solve using the Elimination Method:

$$2x + y = 11$$

$$3x - y = 4$$

2. Solve:

$$4x + 3y = 18$$

$$2x - 3y = 6$$

3. Solve:

$$5x + 2y = 16$$

$$3x - 2y = 8$$

4. Which variable gets eliminated first in Question 2?
5. State one advantage of the Elimination Method.
6. Verify the solution obtained in Question 3.

Answer Key

- 1.

$$2x + y = 11$$

$$3x - y = 4$$

Adding:

$$5x = 15$$

$$x = 3$$

$$y = 5$$

$$\text{Solution} = (3, 5)$$

2.

$$4x + 3y = 18$$

$$2x - 3y = 6$$

Adding:

$$6x = 24$$

$$x = 4$$

$$y = 2/3$$

$$\text{Solution} = (4, 2/3)$$

3.

$$5x + 2y = 16$$

$$3x - 2y = 8$$

Adding:

$$8x = 24$$

$$x = 3$$

$$5(3) + 2y = 16$$

$$2y = 1$$

$$y = 1/2$$

$$\text{Solution} = (3, 1/2)$$

4. y

5. It avoids expressing variables in terms of each other.

6.

$$5(3) + 2(1/2) = 16$$

$$3(3) - 2(1/2) = 8$$

