Class 10 Mathematics - Pair of Linear Equations in Two Variables

Name: _____

Date: _____

Advanced Worksheet 1

Questions

1. Solve the following pair of equations using the Substitution Method:
   $x + y = 10$
   $x - y = 4$
2. Solve:
   $2x + y = 7$
   $x - y = 2$
3. Solve:
   $3x + y = 11$
   $x + y = 7$
4. Which method is generally preferred when one variable has coefficient 1?
5. State one advantage of the Substitution Method.
6. Verify your answer to Question 1 by substituting the values in both equations.

Answer Key

1.

$x + y = 10$

$x – y = 4$

Adding:

$2x = 14$

$x = 7$

$y = 3$

Solution = (7, 3)

2.

$x = y + 2$

$2(y + 2) + y = 7$

$3y = 3$

$y = 1$

$x = 3$

Solution = (3, 1)

3.

From $x + y = 7$

$y = 7 – x$

$3x + (7 – x) = 11$

$2x = 4$

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x = 2

y = 5

Solution = (2, 5)

4. Substitution Method
5. It is easy when one variable can be isolated quickly.
6.

7 + 3 = 10

7 – 3 = 4

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