Substitution and Elimination

Algebra 7.3

Review:

Solve each of the following using substitution or elimination:

1. $y = 3x - 2$
$3x - 2y = -8$

2. $2x - 3y = 7$
$4x + 3y = 5$

Use Substitution when at least one variable has a coefficient of 1 (or -1).
Use Elimination when variables share the same coefficient.
Both will always work, if neither of the above is true, use whichever method you are more comfortable with.

Examples:
Substitution or Elimination? (DO NOT SOLVE)

1. $y = 3x - 5$
$x = y - 3$

2. $5x - 2y = 11$
$2x + 2y = 3$

3. $3x - y = 31$
$3y = x - 5$

Now, solve them.

1. $y = 3x - 5$
$x = y - 3$

2. $5x - 2y = 11$
$2x + 2y = 3$

3. $3x - y = 31$
$3y = x - 5$

Use Substitution or Elimination to solve the following.

1. $y = 2x - 8$
$2x + 3y = 0$

2. $5x - 3y = -8$
$x + 24 = 2y$

3. $5x = 2y - 1$
$x + y = 11$

Name_____ Period _____

Substitution and Elimination

Algebra 7.6

Substitution and Elimination:
Solve each using substitution or elimination.

1. $y = 3x - 11$
$x = 2y - 3$

2. $x + y = -5$
$x = y + 3$

3. $2x - y = 11$
$x = y + 3$

4. $x + y = -2$
$y + 2x = 2$

5. $y = -3x + 5$
$y = x - 7$

6. $x + 3y = 2$
$2x - y = -10$

7. $y = -2x - 1$
$y + 4 = -x$

8. $y = 3x - 2$
$2 = -3x + y$

9. $2x - 3y = -11$
$x + y = 2$

10. $2y = x - 5$
$2x - 4y = 10$

11. $2x - 3y = -5$
$2x + y = 11$

12. $x - 2y = 1$
$6x - y = 4$

Name_____ Period _____

Substitution and Elimination

Algebra 7.6

Substitution and Elimination:
Solve each using substitution or elimination.

13. $3x + 4y = 2$
$4x = 4y + 12$

14. $y = 3x + 3$
$3x + 2y = -12$

15. $2x - 3y = -24$
$x + 6y = 18$

16. $y = -4x$
$x + 2y = -7$

17. $x = 3y - 4$
$2x + 6y = 5$

18. $3x - 2y = 11$
$x - \frac{1}{2}y = 4$

19. $0.3x - 0.2y = 0.5$
$x + 2y = 15$

20. $x - 7 = 2y$
$4x - y = 9$