

Algebra 2
3.7 – Graphing, Substitution, and Elimination

Name: _____
Period: _____

Solve each equation for the specified variable.

1. $r - s = 20$ for s 2. $5x - 8y = -10$ for x 3. $0.2m - 0.5n = 1$ for n 4. $200x + 400y = -50$ for y

Graph each system to approximate the solution. Then find the exact solution using elimination.

5. $x + y = 1$ 6. $3x - 2y = 6$ 7. $5x + 4y = 16$
2x - 2y = 1 -2x + 3y = 0 4x - 3y = 12

Solve using either substitution or elimination.

8. $3x - 4y = 8$ 9. $5x - 8y = 8$ 10. $\frac{1}{2}x + \frac{3}{2}y = 5$ 11. $y + 3 = 2(x + 4) - 5$
 $y = x - 1$ -10x + 4y = -7 x + y = -10 y + 1 = -4(x - 3) - 2
- $x + y + z = -6$
12. $-2x - y + z = -2$
 $x - 2y - z = 1$

Algebra 2
3.7 – Graphing, Substitution, and Elimination

Name: _____
Period: _____

Solve each equation for the specified variable.

1. $r - s = 20$ for s 2. $5x - 8y = -10$ for x 3. $0.2m - 0.5n = 1$ for n 4. $200x + 400y = -50$ for y

Graph each system to approximate the solution. Then find the exact solution using elimination.

5. $x + y = 1$ 6. $3x - 2y = 6$ 7. $5x + 4y = 16$
2x - 2y = 1 -2x + 3y = 0 4x - 3y = 12

Solve using either substitution or elimination.

8. $3x - 4y = 8$ 9. $5x - 8y = 8$ 10. $\frac{1}{2}x + \frac{3}{2}y = 5$ 11. $y + 3 = 2(x + 4) - 5$
 $y = x - 1$ -10x + 4y = -7 x + y = -10 y + 1 = -4(x - 3) - 2
- $x + y + z = -6$
12. $-2x - y + z = -2$
 $x - 2y - z = 1$