

# Honors Geometry

## Algebra Review

Name \_\_\_\_\_ Block \_\_\_\_\_

Solve the equation:

- $6z + 3 = 8z - 5$
- $5x + 14 - 2x = 9 - (4x + 2)$
- $3x + 17 - 5x = 12 - (6x + 3)$
- $7x - 29 - 21x = 3 - (12 + 2x)$
- $x(2x - 1) - 10 = -2x(1 - x)$
- $4(a + 1) = 6[a - (3 - a)]$

Solve:

- $x^2 = 9$
- $49x^2 - 25 = 0$
- $x^2 = -100$
- Solve the equation  $\frac{1}{6}x^2 = 54$ .

Use the quadratic formula to solve the equation to the exact value or round to two decimal places.

- $x^2 - x - 3 = 0$
- $x^2 - x - 5 = 0$

Solve:

- $x^2 + 2x - 2 = 0$
- $x^2 - 6x + 4 = 0$
- Solve the equation  $x^2 + 3x = 0$ .
- Solve the equation  $30x^2 + 11x - 30 = 0$ .

Solve:

- $x^2 - 6x - 27 = 0$
- $x^2 - 2x - 8 = 0$
- $2x^2 + 24x + 72 = 0$
- Solve the equation  $3x - 7x^2 = 0$ .
- Solve the equation  $4x^2 + 7x - 2 = 0$ .
- Solve:  $x^3 - 2x^2 - 24x = 0$
- Use substitution to solve the linear system.  
 $x + 4y = -1$   
 $2x - y = 7$
- Use substitution to solve the linear system.  
 $3x - y = 15$   
 $x + 2y = -2$
- Use substitution to solve the linear system.  
 $x - 4y = 6$   
 $2x + y = -4$
- Use linear combinations to solve the linear system.  
 $3x - 4y = 21$   
 $4x + 2y = 6$
- Use linear combinations to solve the linear system.  
 $4x + 3y = -2$   
 $3x + 2y = -3$
- Use linear combinations to solve the linear system.  
 $3x + 2y = -5$   
 $4x - 3y = 16$