



Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Algebra 1 – Unit 1 – Substitution of Variables (Challenge)

1.  $3w + 2x + 1y - 3z$  text{ where }  $w = 1, x = 7, y = 1, z = 3$  text{ when }

2.  $1x^2 + 2y - 2z$  text{ when }  $x = 7, y = 6, z = 4$  text{ when }  $1w + 3x + 2y - 2z$  text{ when }  $w = 1, x = 7, y = 6, z = 4$

3.  $3w + 4x + 2y - 2z$  text{ where }  $w = 1, x = 7, y = 6, z = 4$  text{ when }  $x = 6, y = 7, z = 5$

4.  $2(5x + 3y)$  text{ when }  $x = 4, y = 7$  text{ when }  $x = 8, y = 9$

5.  $3x^2 + 4y^2 + 4$  text{ when }  $x = 1, y = 3$  text{ when }  $x = 4, y = 5, z = 3$



# Algebra 1 – Unit 1 – Substitution of Variables (Challenge) – Answer Key

1.  $3w + 2x + 1y - 3z$  text{ where }  $w = 1, y = 1, z = 3$  text{ when }  $x = 5$

$x = 29$

2.  $1x^2 + 2y - 2z$  text{ when }  $x = 7, y = 1, z = 3$  text{ when }  $x = 18$

$x = 13$

3.  $3w + 4x + 2y - 2z$  text{ where }  $w = 1, y = 1, z = 3$  text{ when }  $x = 6, y = 1, z = 3$  text{ when }  $x = 29$

$x = 180$

4.  $2(5x + 3y)$  text{ when }  $x = 7, y = 1$  text{ when }  $x = 82$

$x = 144$

5.  $3x^2 + 4y^2 + 4$  text{ when }  $x = 1, y = 1$  text{ when }  $x = 116$

$x = 100$