



Name: _____

Date: _____

Fresh
Math

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

1. text{Substitute: } $3w + 2x + 1y - 3z$ text{ where } $w = 1, x = 3, y = 4, z = 2$ text{ when }
2. text{Substitute: } $1x^2 + 2y - 2z$ text{ where } $x = 1, y = 3, z = 2$ text{ when }
3. text{Substitute: } $3w + 4x + 2y - 2z$ text{ where } $w = 3, x = 4, y = 2, z = 1$ text{ when } $x = 6, y = 8, z = 4$
4. text{Substitute: } $2(5x + 3y)$ text{ when } $x = 8, y = 6$ text{ and } text{Substitute: } $4(3x + 3y)$ text{ when } $x = 8, y = 6$
5. text{Substitute: } $3x^2 + 4y^2 + 4$ text{ when } $x = 10, y = 14$ text{ and } text{Substitute: } $4x^2 + 5y - 3z$ text{ when } $x = 10, y = 14, z = 1$



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

1. text{Substitute: } $3w + 2x + 1y - 3z$ text{ where } $x = 7, z = 3$ text{ when } $w = 1$, $y = 4$ text{ when } $z = 2$
 $x = 5$ x = 29
2. text{Substitute: } $1x^2 + 2y - 2z$ text{ when } $y = 7$ text{ and } $z = 1$ text{ when } $x = 3$
 $x = 18$ x = 13
3. text{Substitute: } $3w + 4x + 2y - 2z$ text{ when } $x = 6, y = 5$ text{ and } $z = 3(x + 4y)$ text{ when } $x = 6, y = 2$
 $x = 29$ x = 180
4. text{Substitute: } $2(5x + 3y)$ text{ when } $x = 8, y = 4$ text{ and } $4(3x + 3y)$ text{ when } $x = 8, y = 2$
 $x = 82$ x = 144
5. text{Substitute: } $3x^2 + 4y^2 + 4$ text{ when } $y = 10$ text{ and } $4x^2 + 5y - 3z$ text{ when } $x = 10, z = 1$
 $x = 116$ x = 100