

Name _____

Simplifying Expressions

Simplifying Expressions with Variable Substitution.

1) $3x + 2y$ when $x = 4$ and $y = 5$.

$$3(4) + 2(5) = 12 + 10 = 22$$

2) $2a^2 - 5b$ when $a = 3$ and $b = 2$.

$$2(3)^2 - 5(2) = 18 - 10 = 8$$

3) $4m - 7n + p$ when $m = 2$, $n = 3$, and $p = 1$.

$$4(2) - 7(3) + 1 = 8 - 21 + 1 = -12$$

4) $x^2 + y^2 - z^2$ when $x = 5$, $y = 4$, and $z = 3$.

$$5^2 + 4^2 - 3^2 = 25 + 16 - 9 = 32$$

5) $2x + 3y - 4z$ when $x = 1$, $y = 2$, and $z = 3$.

$$2(1) + 3(2) - 4(3) = 2 + 6 - 12 = -4$$

6) $5a - 3b + 4c$ when $a = 2$, $b = 1$, and $c = 3$.

$$5(2) - 3(1) + 4(3) = 10 - 3 + 12 = 19$$

7) $7p - 2q + r$ when $p = 3$, $q = 2$, and $r = 4$.

$$4(2) - 7(3) + 1 = 8 - 21 + 1 = -12$$

8) $3m^2 - 4n + 2p$ when $m = 2$, $n = 5$, and $p = 3$.

$$5(2)^2 - 4(5) + 2(3) = 12 - 20 + 6 = -2$$
