

ALL PROBLEMS CAN BE COMPLETED ON THIS WORKSHEET

WS 2A.1 - Evaluating Algebraic Expressions#1-6, Evaluate each expression for $x = 5$, $y = 3$, $z = -4$.

1. $3x + 2y - 2z$

$$= 3(5) + 2(3) - 2(-4)$$

$$= 15 + 6 + 8$$

$$= \boxed{29}$$

2. $2x^2 - 4y^2$

$$= 2(5)^2 - 4(3)^2$$

$$= 2(25) - 4(9)$$

$$= 50 - 36$$

$$= \boxed{14}$$

3. $\frac{xyz}{x+y+z}$

$$= \frac{(5)(3)(-4)}{(5)+(3)+(-4)}$$

$$= \frac{-60}{4} = \boxed{-15}$$

4. $x^2 - 4y - 5z$

$$= (5)^2 - 4(3) - 5(-4)$$

$$= 25 - 12 + 20$$

$$= \boxed{33}$$

5. $x^2 - (4y - 5z)$

$$= (5)^2 - [4(3) - 5(-4)]$$

$$= 25 - [12 + 20]$$

$$= 25 - 32$$

$$= \boxed{-7}$$

6. $x^2 + 3xy^2z - (y - x)$

$$= (5)^2 + 3(5)(3)^2(-4) - [(3) - (5)]$$

$$= 25 + 3(5)(9)(-4) - [-2]$$

$$= 25 - 540 + 2$$

$$= \boxed{-513}$$