

NAME Answer

DATE _____

PERIOD _____

Pre-Algebra
Chapter 1.5
Evaluating Expressions

In Exercises 1-8, evaluate each expression if $x = 5$ and $y = 12$.

$$1 \quad 3x + 9y \quad 3(5) + 9(12) = 15 + 108 = \boxed{123}$$

$$2 \quad 12 + 3y \quad 12 + 3(12) = 12 + 36 = \boxed{48}$$

$$3 \quad 5x + 7x \quad 5(5) + 7(5) = 25 + 35 = \boxed{60}$$

$$4 \quad xy - y \quad (5)(12) - 12 = 60 - 12 = \boxed{48}$$

$$5 \quad 12y - 8y \quad 12(12) - 8(12) = 144 - 96 = \boxed{48}$$

$$6 \quad 3x^2 + 2y^2 \quad 3(5^2) + 2(12^2) = 3(25) + 2(144) = 75 + 288 = \boxed{363}$$

$$7 \quad 5(x + y) \quad 5(5 + 12) = 5(17) = \boxed{85}$$

$$8 \quad 3xy^2 - 5x^2 \quad 3(5)(12^2) - 5(5^2) = (3)(5)(144) - 5(25) =$$

$$15(144) - 125$$

$$2160 - 125 = \boxed{2035}$$

In Exercises 9-11, evaluate each expression if $z = 3$, $r = 7$, $m = 9$.

$$9 \quad 3z + r^2 - 2m \quad 3(3) + 7^2 - 2(9) = 9 + 49 - 18 = \boxed{40}$$

$$10 \quad 5(m - r) + 7(r - z) - 3(m - z) \quad 5m - 5r + 7r - 7z - 3m + 3z = 2m + 2r - 4z$$

$$2(9) + 2(7) - 4(3)$$

$$11 \quad 6(r - z) + 6(m - z) + 6(m - r) \quad 6r - 6z + 6m - 6z + 6m - 6r \quad 18 + 14 - 12$$

$$\boxed{20}$$

$$12m - 12z$$

$$12(9) - 12(3)$$

$$108 - 36$$

$$\boxed{72}$$