

Name:

Date

: Hour:

Unit 2 Study Guide
Algebraic Expressions

Evaluate each expression. Use the values $m = -4$, $n = -6$, and $p = 7$

$$-5m - n$$

$$-5(-4) - (-6)$$

$$= 20 + 6 = \boxed{26}$$

$$-2mn + p$$

$$-2(-4)(-6) + 7$$

$$= +8(-6) + 7$$

$$= -48 + 7 = \boxed{-41}$$

$$p - m - n$$

$$7 - (-4) - (-6)$$

$$= 7 + 4 + 6 = \boxed{17}$$

Evaluate when $n = 12$ and $p = -5$

a) $2n - 9$

$$2(12) - (9)$$

$$= 24 - 9$$

$$= \boxed{15}$$

b) $3(n + p)$

$$3(12 + -5)$$

$$= 3(12 - 5)$$

$$= 3(7) = \boxed{21}$$

c) $\frac{n}{4} - p$

$$\frac{12}{4} - (-5)$$

$$= 3 + 5 = \boxed{8}$$

Evaluate each expression $x = 3, 4, 5$.

$$7x = 7 \cdot 3 = \boxed{21} \text{ For } x=3$$

$$= 7 \cdot 4 = \boxed{28} \text{ For } x=4$$

$$= 7 \cdot 5 = \boxed{35} \text{ For } x=5$$

$$15 - x = 15 - 3 = \boxed{12} \text{ For } x=3$$

$$= 15 - 4 = \boxed{11} \text{ For } x=4$$

$$= 15 - 5 = \boxed{10} \text{ For } x=5$$

$$60/x = \frac{60}{3} = \boxed{20} \text{ For } x=3$$

$$= \frac{60}{4} = \boxed{15} \text{ For } x=4$$

Evaluate each expression for $n = 5$.

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

$$-9(5 - 2) + 3 \cdot 5 - 4 = -9 \cdot 3 + 15 - 4 = -27 + 15 - 4 = -12 - 4 = \boxed{-16}$$

$$2(3n + 5n) - 9n + 18$$

$$2(3 \cdot 5 + 5 \cdot 5) - 9 \cdot 5 + 18 = 2(15 + 25) - 45 + 18$$

$$= 2 \cdot 40 - 45 + 18 = 80 - 45 + 18 = 35 + 18 = \boxed{53}$$

$$12 + 2x - 3(-x + 5)$$

$$12 + 2 \cdot 1 - 3(-1 + 5)$$

$$= 12 + 2 - 3(4) = 12 + 2 - 12 = \boxed{2}$$