

Name:

Date

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Unit 2 Study Guide
Algebraic Expressions

4- Objective: I can Evaluate variable expressions involving integers

Evaluate each expression if $a = 4$, $b = 2$, and $c = 7$.

1. $3ac$

$$3 \cdot 4 \cdot 7 = 12 \cdot 7 = (84)$$

2. $5b^3$

$$5 \cdot 2^3 = 5 \cdot 8 = (40)$$

3. abc

$$4 \cdot 2 \cdot 7 = 8 \cdot 7 = (56)$$

4. $5 + 6c$

$$5 + 6 \cdot 7 = 5 + 42 = (47)$$

5. $\frac{ab}{8}$

$$\frac{4 \cdot 2}{8} = (1)$$

6. $2a - 3b$

$$2 \cdot 4 - 3 \cdot 2 = 8 - 6 = (2)$$

7. $\frac{b^4}{4}$

$$\frac{2^4}{4} = \frac{2 \cdot 2 \cdot 2 \cdot 2}{4} = (4)$$

8. $c - a$

$$7 - 4 = (3)$$

9. $20 - bc$

$$20 - 2 \cdot 7 = 20 - 14 = (6)$$

10. $2bc$

$$2 \cdot 2 \cdot 7 =$$

11. $ac - 3b$

12. $6a^2$

13. $7c$

14. $6a - b$

15. $ab - c$

Evaluating Algebraic Expressions

Evaluate each expression using the values $p = -2$, $n = 3$, and $s = 5$

a) $2p + 7$

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

b) $p + (n \cdot s)$

$$-2 + (3 \cdot 5) = -2 + 15 = (+13)$$

c) $(n \cdot p) \cdot s$

$$(3 \cdot (-2)) \cdot 5 = -6 \cdot 5 = (-30)$$

d) $\frac{15}{s} - p$

$$\frac{15}{5} - (-2) = 3 + 2 = (5)$$

e) $8n + 2s$

$$8(3) + 2(5) = 24 + 10 = (34)$$

f) $5s - 3p$

$$5(5) - 3(-2) = 25 + 6 = (31)$$