NAME _____   **DATE** _____

Module 2 Writing and Simplifying Algebraic Expressions

Lesson 5 Evaluating Expressions

additional practice

Evaluate each expression for the given values of the variables.

1. $-4x^2y^3 - 3$ for $x = -2$, $y = 5$

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2. $[a + 7(b + 3)]^3 \div 5$ for $a = 6$, $b = 2$

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3. $2|x - y| + 3(y - x)$ for $x = 5$, $y = -3$

_____

4. $\pi r^2 h$ for $r = 2$, $h = 12$

_____

5. $\pi r^2 h$ for $\pi = 3.14$, $r = 1$, $h = 7$

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6. $a^2 + b^2 - c^2$ for $a = -8$, $b = -11$, $c = 0$

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7. $\dfrac{(r - t)(t^2 - 2r + 1)}{r - 1}$ for $r = 5$, $t = -7$

_____

8. $\sqrt{a^2 + b^2}$ for $a = 12$, $b = -5$

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9. $\dfrac{\sqrt[3]{x} + \sqrt{b}}{\frac{1}{2}x + 11}$ for $x = -64$, $b = 121$

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10. $\dfrac{c^2 + 3ab - b^2}{a + b}$ for $a = 2$, $b = 4$, $c = 5$

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Evaluate each expression when $a = -1$, $b = -5$, and $c = 6$.

11. $a^3 - |2ac| - c^2(a + 4)$ _____

12. $\dfrac{5a^2 - 11a - 3}{b + 3c}$ _____

13. $a^2 + b^2 - 2ac^3 - |ab|$ _____

14. $b^2 - 4ac$ _____

Evaluate the expression $\frac{1}{2}(b_1 + b_2)h$ for the variables given.

15. $b_1 = 13$, $b_2 = 8$, $h = 18$ _____

16. $b_1 = 21$, $b_2 = 7$, $h = 12$ _____

17. $b_1 = 1$, $b_2 = 3$, $h = 10$ _____

18. $b_1 = 37$, $b_2 = 43$, $h = 40$ _____

19. $b_1 = 22$, $b_2 = 12$, $h = 32$ _____

20. $a = 2$, $b = 1$, $h = 3$ _____

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