

**SECTION
1B**

Ready to Go On? Quiz

1-7 Variables and Algebraic Expressions

Evaluate each expression for the given value of the variable.

- | | |
|---|--|
| 1. $6x - 14$ for $x = 5$ _____ | 2. $3r^2 \div 12$ for $r = 4$ _____ |
| 3. $(9 + k) \cdot 8$ for $k = 1$ _____ | 4. $4(y \div 3)$ for $y = 15$ _____ |
| 5. $n^3 - 35$ for $n = 6$ _____ | 6. $4pt$ for $p = 3$ and $t = 5$ _____ |
| 7. $9 - x + t$ for $x = 3$ and $t = 10$ _____ | 8. $4q^2 - (m \div 3)$ for $q = 7$
and $m = 33$ _____ |

1-8 Translate Words into Math

Write each phrase as an algebraic expression.

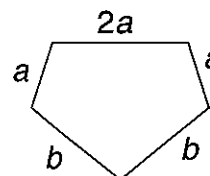
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|--|--|
| 9. the product of a number and 7 _____ | 10. add 25 to a number _____ |
| 11. a number decreased by 6 _____ | 12. the quotient of a number and 5 _____ |
| 13. 3 times a number _____ | 14. take away 14 from a number _____ |
15. Sarah was 116 cm tall when she started to measure her height. She grows an average of 3 cm each month. Write an algebraic expression to show Sarah's height after h months. _____

1-9 Simplifying Algebraic Expressions

Simplify each expression.

- | | | |
|---------------------------------------|---------------------------------------|----------------------------------|
| 16. $6x - 7 + 3x - 7x$
_____ | 17. $3y^3 + 3y^2 + y^2 - 8$
_____ | 18. $5 - 6b + a + b$
_____ |
| 19. $2h + 10 - 5h + 7g + 3g$
_____ | 20. $5r^2 - 34 + 100 + 3r^2$
_____ | 21. $10 - 4h - 5h - 2h$
_____ |

22. Write an expression for the perimeter of the figure. Then simplify the expression.



LESSON
1-9 **Challenge**
Matching Terms

Draw a line from each set of terms in Column A to its equivalent combination in Column B. Then circle each letter in Column B that does not have a matching term. Unscramble those letters to answer the riddle.

Column A

1. $2x + 7 + 5x - 4 - x$
2. $5 + 7x + 2x - 3 + 6$
3. $x + y + 4x - 3x + 2y + 3y$
4. $3x^2 + 5x - 17 + 6x + 20$
5. $4x + x^2 + 12 - 4 + 2x$
6. $12y + 12x + 12 - 6x + 12$
7. $12y + 4 + x - 7y + 8 + 8x$
8. $5x + x^2 + 2x + 5 - 4 - x^2$
9. $5x^2 + 8x + 7x^2 + 6x$
10. $12x + 6 - 8x - 4x - 3 + 12$
11. $5x + 4 - 3x + 5 + 2x - 9$
12. $4x + 2y + 8 - 3 - y - x$
13. $4x + 5 + 7x + 2y + 2 - y$
14. $2y + 2x + 8 - 6 + x - 2y$
15. $4x + 6y + 6 + 7x + y$
16. $3x^2 + 4x - 2x^2 - 3x + 2x$
17. $8x + 4 - 4 - 4x + x$
18. $y + 5x + 6y + 9 - 6$
19. $x^2 + 3 + 2x^2 + 4 - 7$
20. $5y + 3 + 7x^2 - 2 - x^2 + y$

Column B

- A. $5y + 9x + 12$
- B. $12y + 6x + 24$
- C. 15
- D. $9x + 8$
- E. 4
- F. $6x + 3$
- G. $11x + y + 7$
- H. $x^2 + 6x + 8$
- I. $4x$
- J. $3x^2 + 11x + 3$
- K. $3x + 2$
- L. $3x^2$
- M. $6x$
- N. $x^2 + 3x$
- O. $6x^2 + 6y + 1$
- P. $12x^2 + 14x$
- Q. $7x + 1$
- R. x^2
- S. $5x + 7y + 3$
- T. 0
- U. $2x + 6y$
- V. $3x + y + 5$
- W. $11x + 7y + 6$
- X. $5x$

Riddle: What can be a word, a number, a period of time, or a variable?

A _____