

Name _____

1-1B Lesson Master**Questions on SPUR Objectives**

See Student Edition pages 66–69 for objectives.

VOCABULARY

1. Identify all of the variables in each expression or sentence.

a. $3x^2 + 14x \geq -12$ _____

b. $2\pi r^2 + 2\pi rh$ _____

In 2–5, tell whether an expression or an equation is given.

2. $(x + y + z)^2$ _____

3. $y = mx + b$ _____

4. $13a^2 + 44 = -19$ _____

5. $\frac{s^2\sqrt{3}}{4}$ _____

6. Give an example of an algebraic sentence that is not an equation.

7. Give an example of an equation that is not a formula.

SKILLS Objective A

In 8–11, evaluate each expression.

8. $8 \div 2 \cdot 6 - (3 - 9)$ _____

9. $(4 - 6)^3 + 12 \div 3 - 7$ _____

10. $22 - 4 \cdot 2^5 + (4 \cdot 2)^2$ _____

11. $\frac{\sqrt{8^2 + 80}}{28 - 4(2 + 6)}$ _____

12. Rewrite the expression $4 + 2 \cdot 3 \cdot 5^2$ and insert parentheses to make it equal to 454.

13. Evaluate each expression when $d = 5$, $e = 3$, and $f = -2$.

a. $f + 3de =$ _____

b. $(7 + e)(d - f) =$ _____

c. $12 + 6f^{2e} =$ _____

d. $\frac{4f\sqrt{19 - e}}{\left(\frac{9d}{e}\right)^2} =$ _____

14. Evaluate each expression for $x = -2.6$, $y = -\frac{1}{3}$, and $z = \sqrt{5}$. Round to the nearest thousandth.

a. $x + y + z =$ _____

b. $xyz =$ _____

c. $x^2 + y^2 + z^2 =$ _____

d. $(x + y + z)^2 =$ _____

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In 15–18, write an expression to describe the situation.

15. The enrollment at Shaw Elementary School was 1164. On Friday, n new students enrolled, and w students withdrew. What is the new school enrollment?

16. The model of a ship is one hundredth of the actual size. Find the length of a model ship if the actual ship is M meters long.

17. The original price of a compact disc was C dollars. What is the sale price after a 25% discount?

18. Polly's cell phone bill is \$39.95 per month plus \$0.20 for each text message. Last month she had t text messages. How much was her cell phone bill?

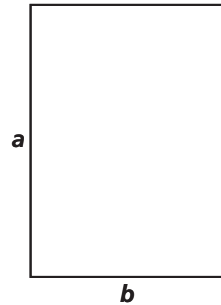
19. Bashir used 160 one-foot square tiles to tile the floor of his rectangular bedroom.

- a. Let a and b be the dimensions of the floor as shown at the right. Write an expression for b in terms of a .

- b. Write an expression for the perimeter of the floor in terms of a and b .

- c. Write an expression for the perimeter of the floor in terms of a only.

- d. The perimeter of Bashir's bedroom is less than 55 feet. Write a sentence relating your answer to Part c to the perimeter.



20. Use $S.A. = 4\pi r^2$ to find the surface area of a beach ball with radius 26 cm. Round to the nearest whole number and include units.
