

Name _____

1-1A 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. $V = \frac{4}{3}\pi r^3$ _____

b. $d = \frac{1}{2}a \cdot t^2 + v \cdot t$ _____

In 2 and 3, determine whether each sentence is a. an equation and b. a formula. Write yes or no.

2. $F = m \cdot a$ a. _____ b. _____

3. $2x - 7y \geq 8$ a. _____ b. _____

SKILLS Objective A

4. Evaluate each expression when $a = 3$, $b = -7$, and $c = 2$.

a. $a + 2bc =$ _____

b. $(a + b)(c - 4) =$ _____

c. $ab^{c+1} =$ _____

d. $\frac{(\frac{1}{3}ab)^c}{\sqrt{a-c}} =$ _____

5. Evaluate each expression for $x = 1.2$, $y = -\frac{3}{4}$, and $z = \sqrt{2}$. Round to the nearest thousandth.

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

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

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

d. $\frac{z^2 + x}{y} =$ _____

6. Use $V = \frac{1}{3}\pi r^2 h$ to find the volume of an ice cream cone with radius 2 cm and height 9 cm. Round to the nearest whole number and include units. _____

7. The acceleration g due to gravity at a particular location is given by $g = \frac{2d}{t^2}$, where d is the distance an object falls in t seconds. On the moon, an astronaut drops a rock. It falls 2 meters in 1.6 seconds. Find the value of g rounded to the nearest tenth. Include units. _____

8. A compact fluorescent bulb uses 13 watts to produce the same light as a 60-watt incandescent bulb. At 11.3¢ per kilowatt-hour, how much money will the compact fluorescent save over the 5000-hour life of the bulb? _____