

Name _____

9-1A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 656–659 for objectives.

PROPERTIES Objective D

1. Determine whether each equation is an exponential function.

a. $y = 3.2^x$ _____ b. $y = x^{3.2}$ _____ c. $y = 3(2)^x$ _____

2. **Fill in the Blanks** Jillian wants to model a situation with an initial value of 84 and 12% growth.

a. If she uses $A = P(1 + r)^t$, then $P =$ _____ and $r =$ _____.

b. If she uses $y = a \cdot b^x$, then $a =$ _____ and $b =$ _____.

USES Objective G

3. LeBron James was the first NBA draft pick in 2003. In his first season, he earned \$4,018,920. Over the next two years, he received about a 7% raise every year.

a. How much did he make in his third year? _____

b. In his fifth year, he earned \$13,041,250. Did the 7% increase continue? _____

4. In 2000, about 38.4 million U.S. citizens did not have health insurance. Over the next six years, that number grew at an average rate of 4.1% per year.

a. Write an equation modeling this situation with y representing the number (in millions) of uninsured U.S. citizens x years after 2000. _____

b. If this growth continues at the same rate, estimate the number of U.S. citizens without health insurance in 2010. _____

c. If this growth continues at the same rate, in what year will there be 65 million uninsured? _____

REPRESENTATIONS Objective J

In 5 and 6, consider the functions f and g with $f(x) = 2^x$ and $g(x) = 5^x$.

5. Fill in the table of values below.

x	$f(x) = 2^x$	$g(x) = 5^x$
-3		
-2		
-1		
0		
1		
2		
3		

6. Carefully graph and label both functions on the same set of axes below.

