Name _____

1-2B Lesson Master

VOCABULARY

1. In the formula $p = 150(2)^n$, p is a function of n.

   a. Identify the dependent variable. _____

   b. Identify the independent variable. _____

2. Tell if each statement is *true* or *false*.

   a. Every function is a relation. _____

   b. Every relation is a function. _____

PROPERTIES   Objective G

In 3 and 4, determine whether the relation is a function. Write *yes* or *no*.

3. $\{(-3, 6), (-2, 18), (3, 12), (-2, -18)\}$

_____
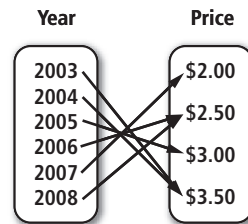
4. $\{(6, 6), (3, -1), (17, 0), (-4, 0)\}$

_____

5.

j	8	12	−7	0	6
k	3	5	22	5	0

   a. Is j a function of k? _____

   b. Is k a function of j? _____

6.

w	4.1	4.1	4.1	4.1	4.1
s	−6.3	50	29	−11	5.4

   a. Is w a function of s? _____

   b. Is s a function of w? _____

7. The diagram at the right shows the price of a DVD rental at DeVeer's Movies for each of six years.

   a. Is *price* a function of *year*? Explain.

   _____

   _____

   b. Is *year* a function of *price*?

   _____

   _____

Year	Price
2003	$2.00
2004	$2.50
2005	$3.00
2006	
2007	$3.50
2008	

Name _____

1-2B   **page 2**

8. You launch a bottle rocket from a rock 5 feet above the ground. The table at the right gives its height above the ground at various times during the flight.

Time (seconds)	0	1.5	3.0	4.5	6.0	7.5
Height (feet)	5	149	221	221	149	5

   a. Is *height* a function of *time*? _____   b. Is *time* a function of *height*? _____

9. A painter painted five garages. The table shows how much money the painter earned each time..
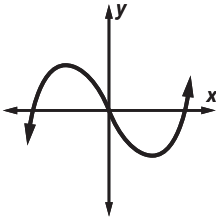
Hours	6	7	5	6	4
Income	$108	$126	$90	$108	$72

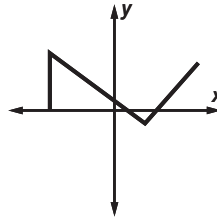   a. Is *income* a function of *hours*? _____   b. Is *hours* a function of *income*? _____

10. The formula $V = \frac{2}{3}\pi r^3$ gives the volume of a hemisphere with radius r. Is V a function of r? Explain.

_____

In 11–13, determine whether the graph represents a function. Write *yes* or *no*.

11.   12.   13.

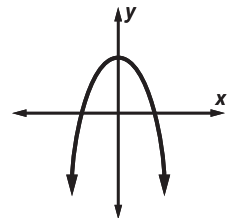
_____   _____   _____

14. The graph at the right shows the number of parks in 12 cities. The population is on the *x*-axis and the number of parks is on the *y*-axis. Is the relation a function? Explain.

_____

_____

_____