NAME _____ DATE _____ PERIOD _____

Practice

Relations and Functions

State the domain and range of each relation. Then state whether the relation is a function. Write yes or no.

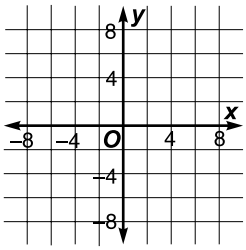
1. $\{(-1, 2), (3, 10), (-2, 20), (3, 11)\}$

2. $\{(0, 2), (13, 6), (2, 2), (3, 1)\}$

3. $\{(1, 4), (2, 8), (3, 24)\}$

4. $\{(-1, -2), (3, 54), (-2, -16), (3, 81)\}$

5. The domain of a relation is all even negative integers greater than -9. The range y of the relation is the set formed by adding 4 to the numbers in the domain. Write the relation as a table of values and as an equation. Then graph the relation.



Evaluate each function for the given value.

6. $f(-2)$ if $f(x) = 4x^3 + 6x^2 + 3x$

7. $f(3)$ if $f(x) = 5x^2 - 4x - 6$

8. $h(t)$ if $h(x) = 9x^9 - 4x^4 + 3x - 2$

9. $f(g + 1)$ if $f(x) = x^2 - 2x + 1$

10. ***Climate*** The table shows record high and low temperatures for selected states.

a. State the relation of the data as a set of ordered pairs.

b. State the domain and range of the relation.

c. Determine whether the relation is a function.

Record High and Low Temperatures (°F)		
State	**High**	**Low**
Alabama	112	−27
Delaware	110	−17
Idaho	118	−60
Michigan	112	−51
New Mexico	122	−50
Wisconsin	114	−54

Source: National Climatic Data Center