

Function Notation and Evaluating Functions Practice Worksheet A

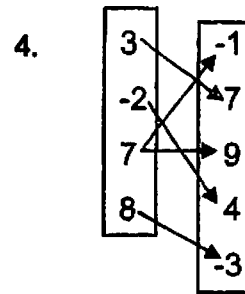
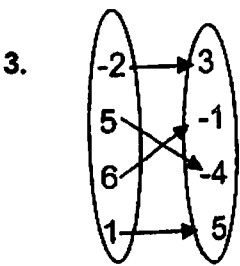
Name _____ Class Period _____

A function is a set of ordered pairs in which each element from the domain (set of all x - coordinates) is paired with one and only one element from the range (set of all y - coordinates).

1. Decide if the following relations are functions (answer yes or no). If the relation is a function, state the domain and range.

1. $\{(-2, 5), (3, 9), (5, 6), (-3, 9)\}$

2. $\{(3, 8), (-4, 9), (-2, 3), (3, 1)\}$



5.

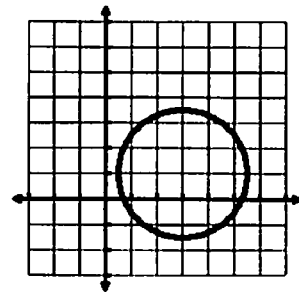
x:	-3	6	1	-8	0
	↓	↓	↓	↓	↓
y:	5	-2	3	-2	0

6.

x	5	2	4	5	1
y	3	-9	-5	2	-1

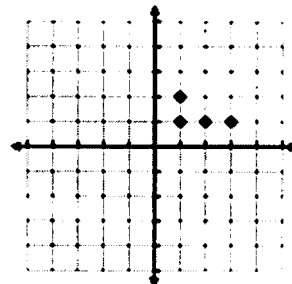
7. A person's cell phone number vs. their name.

10.



8. A person's name vs. their cell phone number.

11.



II. Function Notation is a form of substitution. Use the following to evaluate the functions.

$$f(x) = 2x - 3$$

$$g(x) = \sqrt{x + 5}$$

$$h(x) = x^2 - 3x + 5$$

$$k(x) = \begin{cases} 2x - 3 & \text{if } x > -2 \\ 3 - x & \text{if } x \leq -2 \end{cases}$$

12. $f(-2)$

13. $g(7)$

14. $h(-3)$

15. $k(-2)$

16. $k(3)$

17. $f(2x + 2)$

18. $k(-5)$

19. $h(x - 1)$