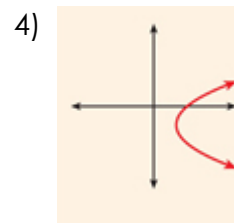
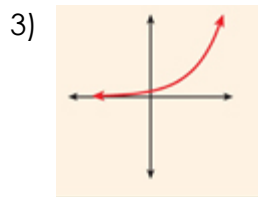
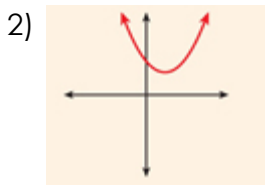
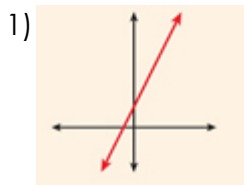


Name \_\_\_\_\_

Date \_\_\_\_\_

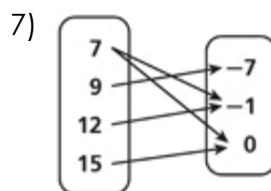
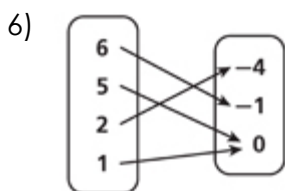
## Function Notation

Decide which of the following are functions:



5) 

x	y
1	1
4	4
8	1



8) 

X	1	3	5	7	9	11
Y	2	4	6	8	10	12

9) 

X	3	3	3	3	3	3
Y	1	2	3	4	5	6

**Evaluate each function:**

10)  $g(x) = 4x + 2$ ; find  $g(10)$ .

11)  $f(x) = x^2 + 2x$ ; find  $f(2)$ .

12)  $f(n) = 4n$ ; find  $f(3)$ .

13)  $h(n) = n^2 - 3n$ ; find  $h(-6)$ .

14)  $g(x) = 2x$ ; find  $g(x - 10)$ .

15)  $h(x) = x^2 - 4$ ; find  $h(10)$ .

16)  $r(x) = |x - 2|$ ; find  $r(0)$ .

17)  $g(t) = |-t - 1|$ ; find  $g(3)$ .

18)  $f(x) = x^2 + 5$ ; find  $f(8)$ .

19)  $p(d) = d^3 - 2$ ; find  $p(-2)$ .

20)  $f(x) = 2x^2 + 3x + 7$ ; find  $f(3)$ .

Use the following functions to find the given value:

$$f(x) = x + 2$$

$$g(x) = \frac{1}{2}x + 1$$

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

$$k(x) = 3 - x$$

21.  $f(2) = \underline{\hspace{2cm}}$

22.  $h(4) = \underline{\hspace{2cm}}$

23.  $g(-6) = \underline{\hspace{2cm}}$

24.  $k(5) = \underline{\hspace{2cm}}$

Find the indicated values by using the graph.

25.  $h(2) = \underline{\hspace{2cm}}$

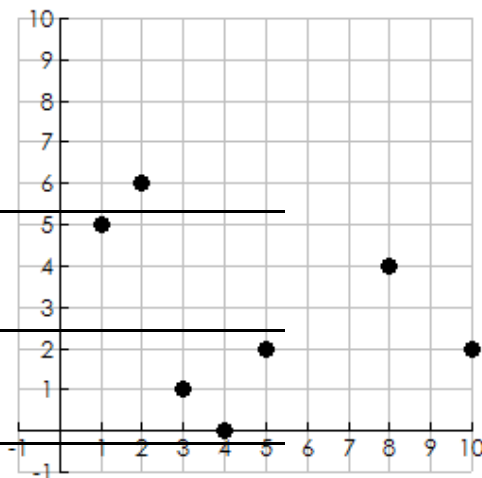
26.  $h(4) = \underline{\hspace{2cm}}$

27.  $h(1) = \underline{\hspace{2cm}}$

28.  $h(5) = \underline{\hspace{2cm}}$

29.  $h(\underline{\hspace{1cm}}) = 4$

30.  $h(\underline{\hspace{1cm}}) = 1$



31. What are the values for  $h(\underline{\hspace{1cm}}) = 2$ ?

Simplify each expression.

32.  $(x^2 - 6x + 5) - (x^2 + x - 2)$

33.  $(7x^3 - 1) - (15x^3 + 4x^2 - x + 3)$

34.  $(4x^2 - 11x + 10) + (5x - 31)$

35.  $(10x - 3 + 7x^2) + (x^3 - 2x + 17)$



