

# Chapter 6 Practice Test 1

Name: \_\_\_\_\_

Time Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Total Time = \_\_\_\_\_

**Consider these three functions:**

$$f(x) = -2x - 1$$

$$g(x) = -2x^2$$

$$h(x) = (x - 1)^2 + 1$$

1.  $f(-4) =$  \_\_\_\_\_

2.  $g(-5) =$  \_\_\_\_\_

3.  $h(5) =$  \_\_\_\_\_

4.  $f(-10) =$  \_\_\_\_\_

5.  $g(3) =$  \_\_\_\_\_

6.  $h(-1) =$  \_\_\_\_\_

**State if the given sets or graphs are functions or not functions.**

**To be a function, for each x value, there can only be one y value. Circle your answer**

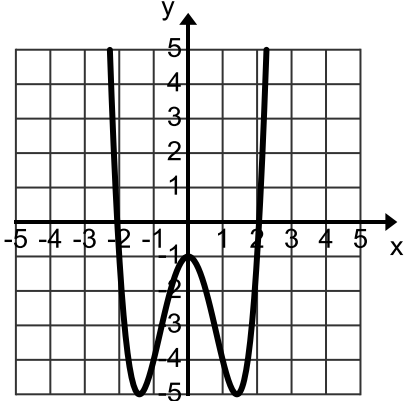
7.  $\{(2,4), (3,4), (5,7)\}$

Yes No

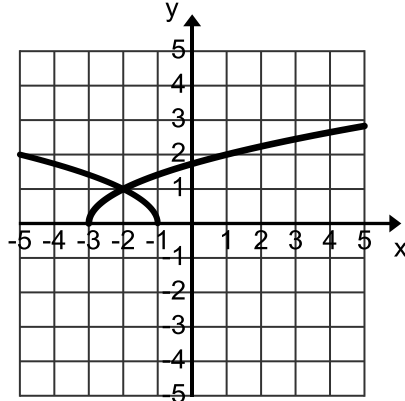
8.  $\{(-2,4), (-1,0), (5,7)\}$

Yes No

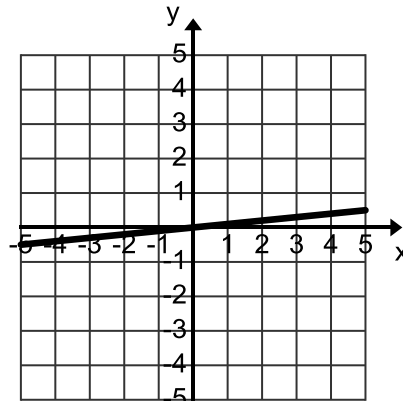
9. Yes No



10. Yes No



11. Yes No



12. Which of these is the zero of the function  $f(x) = x^2 + 2x + 1$ ?

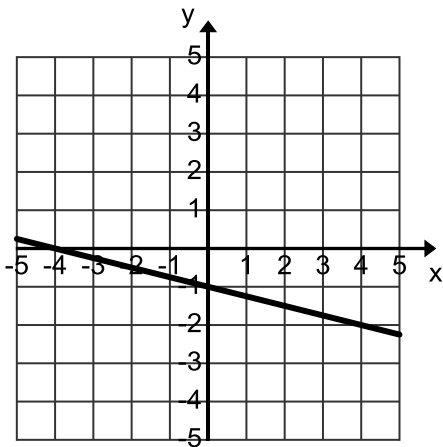
- A. 2      B. -1      C. 1      D. 0

13. Which of these is the zero of the function  $f(x) = x^2 + x - 12$ ?

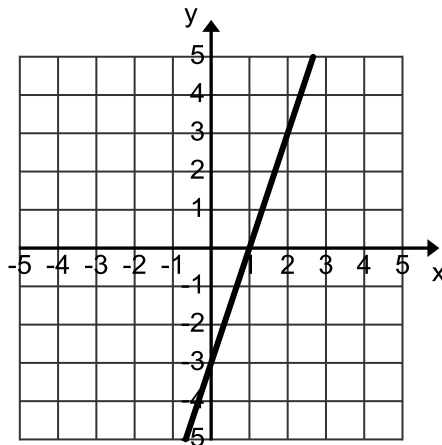
- A. -3      B. -2      C. 3      D. 4

Look at the graphs below and list the x and y-intercepts.  
Write them as an ordered pair like (0, 3) and (7, 0). Piece of cake!

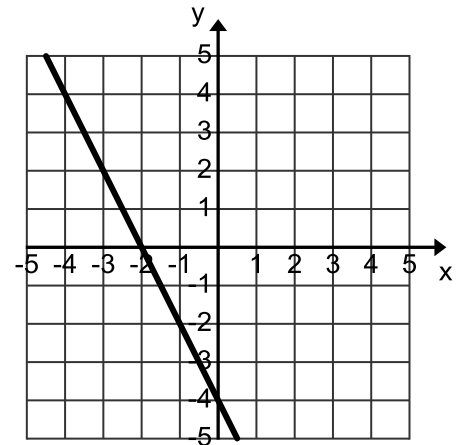
14. x-intercept = \_\_\_\_\_  
y-intercept = \_\_\_\_\_



15. x-intercept = \_\_\_\_\_  
y-intercept = \_\_\_\_\_



16. x-intercept = \_\_\_\_\_  
y-intercept = \_\_\_\_\_



Determine the x and y-intercepts of the given functions.

17.  $f(x) = 2x - 6$  x-intercept = \_\_\_\_\_ y-intercept = \_\_\_\_\_

18.  $f(x) = x - 2$  x-intercept = \_\_\_\_\_ y-intercept = \_\_\_\_\_

19.  $f(x) = \frac{1}{2}x - 8$  x-intercept = \_\_\_\_\_ y-intercept = \_\_\_\_\_

20. If the domain of  $f(x) = -2x + 3$  is  $\{-4, 0, 1\}$ , what is the range? \_\_\_\_\_

21. If the domain of  $f(x) = x - 10$  is  $\{-9, 2, 4\}$ , what is the range? \_\_\_\_\_

Chart 1	
x	y
5	-2
4	-3
7	-9
?	?

Chart 2	
x	y
1	6
2	8
3	4
?	?

\_\_\_\_\_ 22. If in Chart 1 above the two question marks were replaced by (3, -2), would the chart represent a function?

\_\_\_\_\_ 23. If in Chart 2 above the two question marks were replaced by (2, 9), would the chart represent a function?

- \_\_\_\_\_ 24. Give the equation of the line, in slope intercept form, that goes through the point (3, 4) and has a slope of -5.
- \_\_\_\_\_ 25. Give the equation of the line, in slope intercept form, that goes through the point (2, 3) and (3, 6)
- \_\_\_\_\_ 26. Give the equation of the line, in slope intercept form, that goes through the point (2, 8) and is parallel to the line  $y = 9x - 1$ .
- \_\_\_\_\_ 27. Give the equation of the line, in slope intercept form, that goes through the point (8, -4) and is perpendicular to the line  $y = 2x - 3$ .