Chapter 6 Practice Test 2

Name: _____ Time› Start: _____ Finish: _____ Total Time = _____

Consider these three functions:

$f(x) = -x - 1$ **$g(x) = -5(x^2 - 1)$** **$h(x) = (2x - 1)^2$**

1. f(-7) = _____

2. g(-2) = _____

3. h(-3) = _____

4. f(-1) = _____

5. g(3) = _____

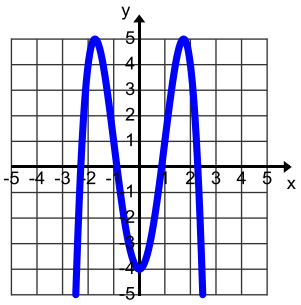
6. h(-1) = _____

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

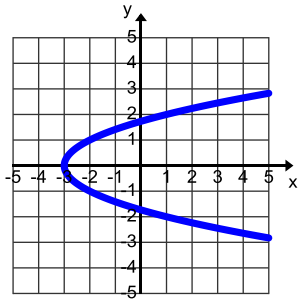
7. $\{(2,1),(5,9),(2,7)\}$
   Yes No

8. $\{(2,1),(1,1),(5,1)\}$
   Yes No

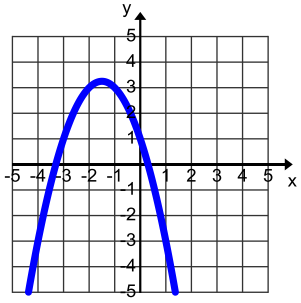
9. Yes No



10. Yes No



11. Yes No

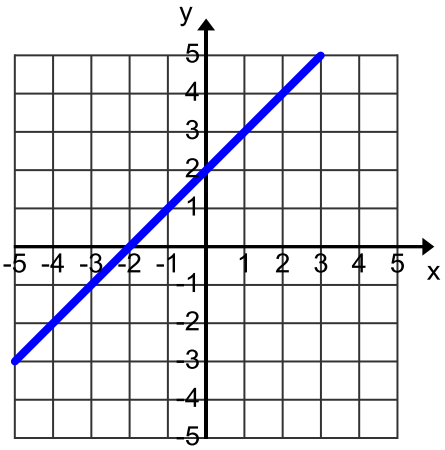


12. Which of these is the zero of the function $f(x) = x^2 - 2x - 8$?
    A. 2 B. -1 C. 4 D. 0

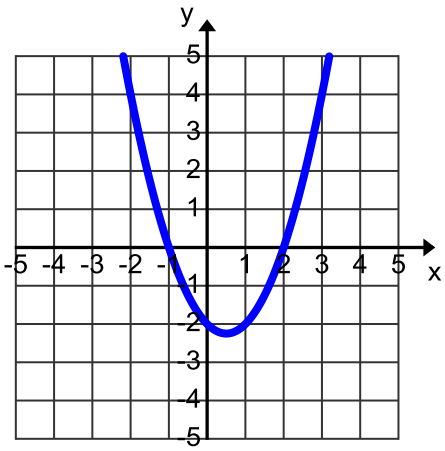
13. Which of these is the zero of the function $f(x) = x^2 - 2x + 1$?
    A. -1 B. -2 C. 3 D. 1

Look at the graphs below and list the x and y-intercepts.
Write them as an ordered pair like (0, 3) and (7, 0). Some have two intercepts.

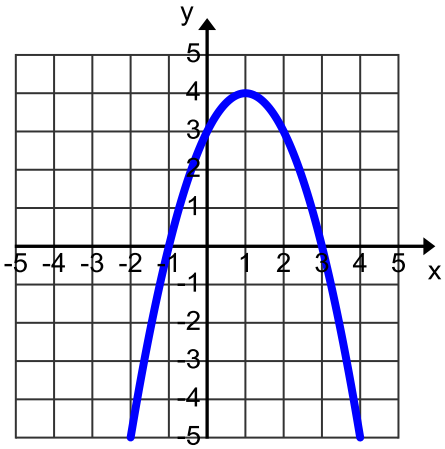
14. x-intercept = _____
y-intercept = _____



15. x-intercept = _____
y-intercept = _____



16. x-intercept = _____
y-intercept = _____



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

17. $f(x) = 6x - 3$ x-intercept = _____ y-intercept = _____

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

19. $f(x) = \frac{1}{2}x - 4$ x-intercept = _____ y-intercept = _____

20. If the domain of $f(x) = 5x + 1$ is {-3, 2, 10}, what is the range? _____

21. If the domain of $f(x) = -x - 8$ is {-3, 2}, what is the range? _____

Chart 1	
x	y
3	-1
4	-6
5	-8
?	?

Chart 2	
x	y
1	5
2	4
3	8
?	?

_____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 (4, 9), would the chart represent a function?

_____ 24. Give the equation of the line, in slope intercept form, that goes through the point (7, 4) and has a slope of -3.

_____ 25. Give the equation of the line, in slope intercept form, that goes through the point (4, 1) and (3, 6)

_____ 26. Give the equation of the line, in slope intercept form, that goes through the point (-3, 6) and is parallel to the line $y = 2x - 1$.

_____ 27. Give the equation of the line, in slope intercept form, that goes through the point (4, 16) and is perpendicular to the line $y = 2x + 5$.