

1. Evaluate  $f(-2)$  if  $f(x) = -3x + 1$ .

1. \_\_\_\_\_

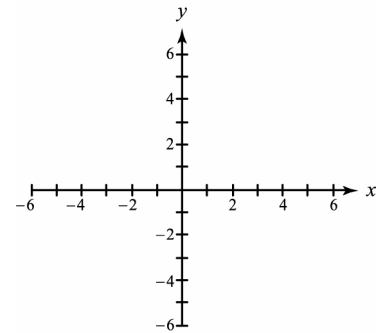
2. Write a symbolic representation (formula) for a function  $C$  that calculates the cost of  $x$  gallons of gasoline at \$2.50 per gallon. Evaluate  $C(10)$  and interpret your result.

2. \_\_\_\_\_

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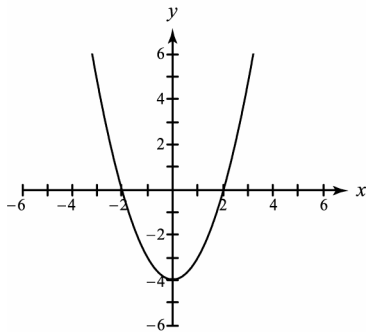
3. Sketch a graph of  $f(x) = x + 3$ .

3.



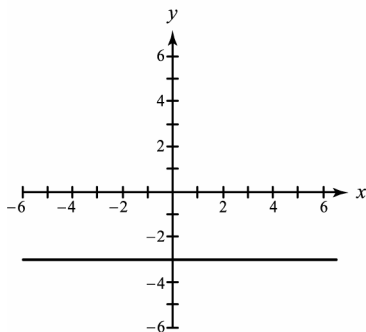
4. Use the graph of  $f$  to evaluate  $f(2)$ .

4. \_\_\_\_\_



5. Determine the domain and range of  $f$ .

5. \_\_\_\_\_

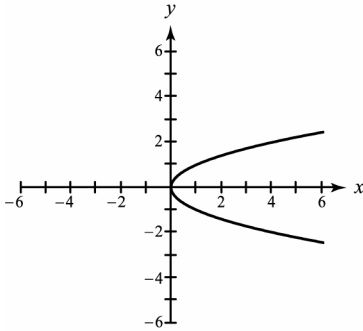


6. A function  $f$  is represented verbally by “Cube the input  $x$  and then subtract 4.” Give a symbolic representation of  $f$ .

6. \_\_\_\_\_

7. Determine whether the graph represents a function.

7. \_\_\_\_\_



8. Find the domain of  $f(x) = \sqrt{x-5}$ .

8. \_\_\_\_\_

9. Find the slope and y-intercept of the graph of  $y = 2x - 3$ .

9. \_\_\_\_\_

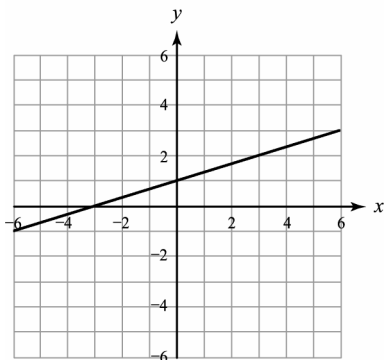
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10. Find the slope of the line passing through  $(1, 3)$  and  $(\frac{1}{2}, 1)$ .

10. \_\_\_\_\_

11. Determine the slope of the line shown in the graph.

11. \_\_\_\_\_



12. Write the slope-intercept form of a line with  $x$ -intercept  $-1$  and  $y$ -intercept  $\frac{5}{3}$ .

12. \_\_\_\_\_

13. Write the slope-intercept form of the line passing through the points  $(\frac{3}{2}, 2)$  and  $(1, \frac{1}{2})$ . 13. \_\_\_\_\_

14. Let  $f$  be a linear function. Find the slope of the graph of  $f$ . 14. \_\_\_\_\_

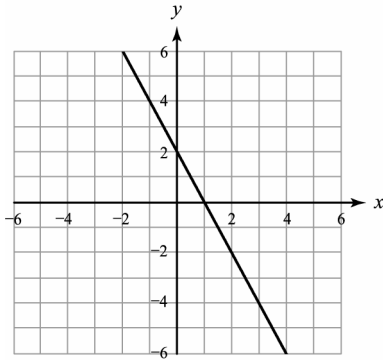
$x$	-2	0	2	3	4
$f(x)$	6	4	2	1	0

15. Let  $f$  be a linear function. Find the  $x$ - and  $y$ -intercepts of the graph of  $f$ . 15. \_\_\_\_\_  
\_\_\_\_\_

$x$	-2	-1	0	1	2
$f(x)$	9	6	3	0	-3

16. Give the slope-intercept form of a line perpendicular to  $y = -\frac{3}{5}x - 2$ , passing through  $(6, -2)$ . 16. \_\_\_\_\_

17. Find the slope-intercept form for the line shown in the graph. 17. \_\_\_\_\_



18. Use the graph in #17 to find the equation of a line that passes through the origin and is perpendicular to the given line. 18. \_\_\_\_\_

19. Find an equation of the vertical line passing through the point  $(-\frac{2}{3}, 1)$ . 19. \_\_\_\_\_

20. Find an equation of the horizontal line passing through the point  $(\frac{3}{2}, -\frac{1}{2})$ . 20. \_\_\_\_\_