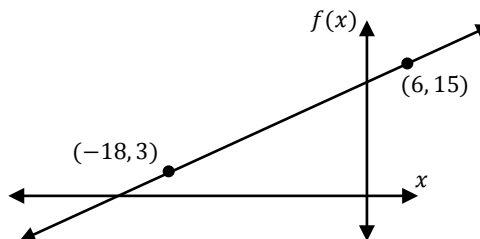


3. Which one of the following functions represents the graph shown to the right?

- a. $f(x) = 2x + 3$
- b. $f(x) = \frac{1}{3}x + 3$
- c. $f(x) = x + 21$
- d. $f(x) = \frac{1}{2}x + 12$



Verify that your answer is correct by determining the values of $f(-18)$ and $f(6)$ for the function you chose and comparing these values to the coordinates of the points shown in the graph.

4.

A. The equations for six linear functions are given below. Complete each table by determining 2 solutions for each equation.

- $x = 0$ has already been selected for each problem.
- Choose your own x -value for the second solution.

$y = 2x$

x	y
0	

$y = \frac{2}{3}x + 2$

x	y
0	

$y = \frac{-x+4}{2}$

x	y
0	

$y = -2(x - 2)$

x	y
0	

$y = 2$

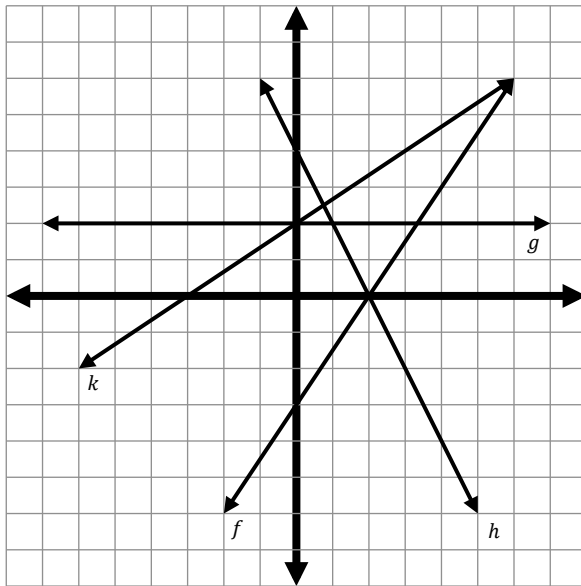
x	y
0	

$y = \frac{3}{2}x - 3$

x	y
0	

B. Matching:

The same linear equations from 4A are now represented graphically as functions f , g , h , and k . Match each graph to its symbolic representation by filling in the appropriate box with $f(x)$, $g(x)$, $h(x)$, or $k(x)$. (Note: Two of the equations do not have a graphical match, so two boxes will remain blank for now.)



- = $2x$
- = $\frac{-x + 4}{2}$
- = 2
- = $\frac{2}{3}x + 2$
- = $-2(x - 2)$
- = $\frac{3}{2}x - 3$

5. Nohea answered the question below by selecting the correct choice: “c”.

Multiple Choice:
 Which equation corresponds to the linear function represented in the graph?

- (A) $f(x) = \frac{1}{2}x - 2$
- (B) $f(x) = 5x + 30$
- (C) $f(x) = 5x - 380$
- (D) $f(x) = \frac{1}{2}x + 16$

A. Use the equation to find the y -intercept. $f(0) =$ _____
 Why does this value seem to NOT match the graph (even though it actually does)? Explain.

B. The functions for options A and D both had a slope of $\frac{1}{2}$. What error might someone have made in order to think that the graph has a slope $\frac{1}{2}$?

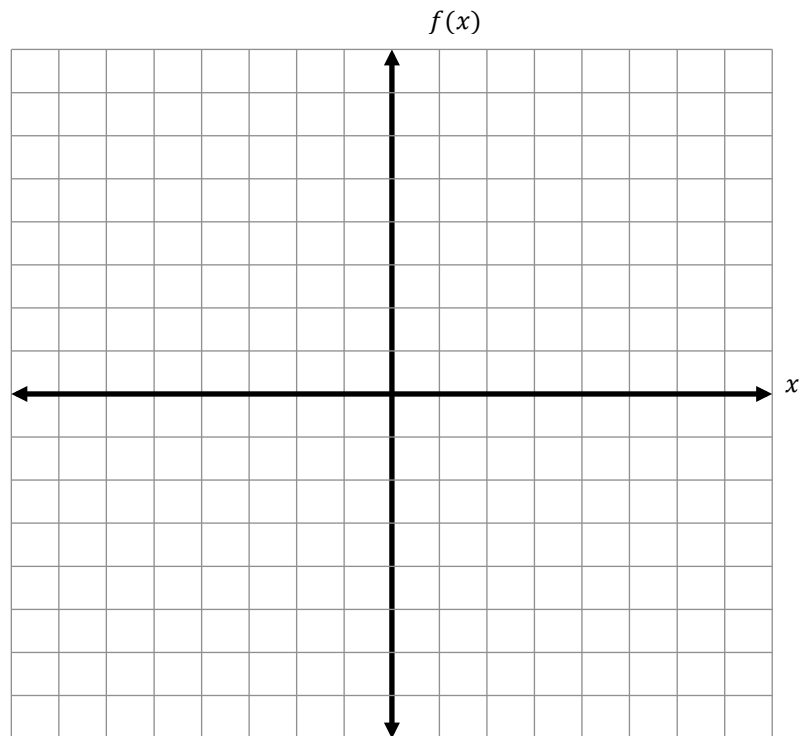
6.

A. Create a graph for a function f given the following conditions:

- $f(0) = 1$
 - *hint: what ordered pair is suggested by the statement $f(0) = 1$?*

- $f(1) = 2 \cdot f(0)$
 - *hint: you need to read this statement as, “the output of f at $x = 1$ is two times the output of function f at $x = 0$.”*

- f is linear



B. Determine an equation for the function represented by your graph.