

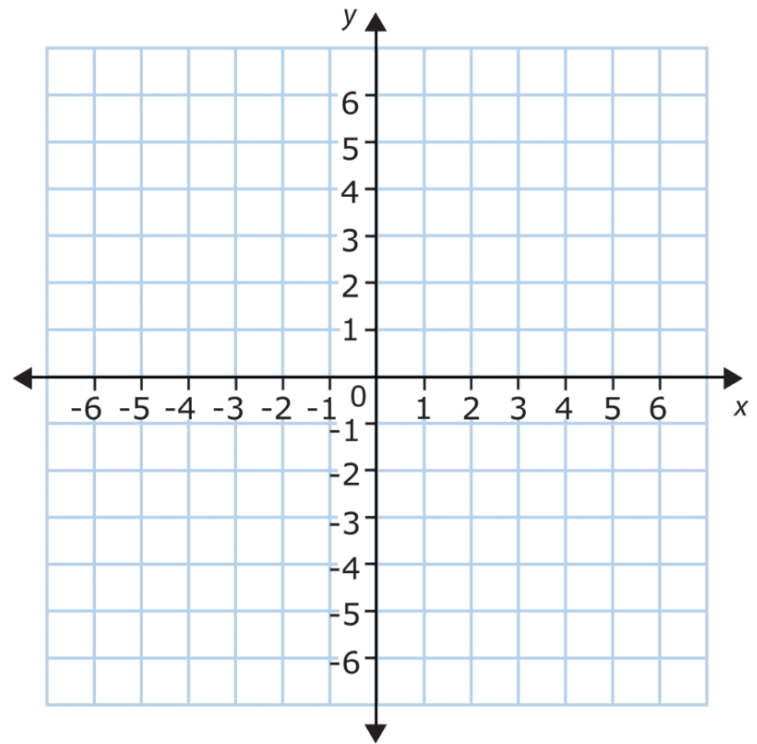


1. Given the equation $4x + 8y = 16$, find the slope-intercept form of the equation. (Hint: Solve for y).

$y =$ _____

2. Use the equation above to complete the table below for the given values of x.

x	y
-6	
-4	
-2	
0	
2	
4	
6	



3. Create a graph to represent the line.
4. Given the equation $x = -\frac{1}{2}y + 2$, find the slope-intercept form of the equation.

$y =$ _____

5. Use the equation above to complete the table below for the given values of x.

x	y
-1	
0	
1	
2	
3	
4	
5	

6. Using the same coordinate plane, create a graph to represent this line.
7. The two functions you just worked with are known as inverse functions. Given the information from the equations, tables, and graph, make some predictions about inverse functions. List at least three things.

8. Three functions are shown below. Two of these functions are the inverse of each other while one isn't. Which two functions do you think represent inverse functions? Why do you think this?

$$j(x) = \frac{1}{3}x - 4$$

$$k(x) = 3x + 4$$

$$m(x) = 3x + 12$$

9. Three functions are shown below. Two of these functions are the inverse of each other while one isn't. Which two functions do you think represent inverse functions? Why do you think this?

$$f(x) = 4x^3 - 8$$

$$g(x) = \sqrt[3]{\frac{x+2}{4}}$$

$$h(x) = \sqrt[3]{\frac{1}{4}x + 2}$$

10. **Challenge:** Based on what you've discovered so far, what do you think the inverse $y = 3x + 9$ would be?