

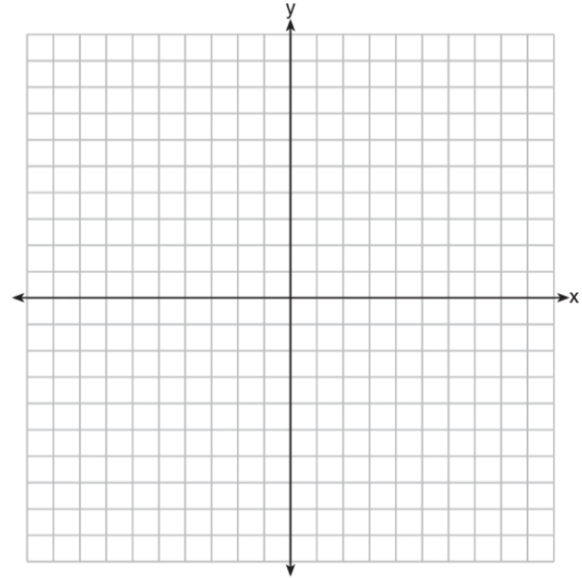
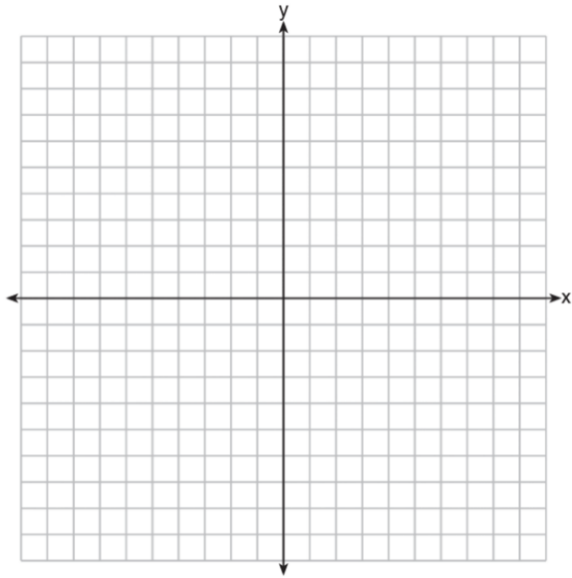
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Notes: Graphing Linear Equations

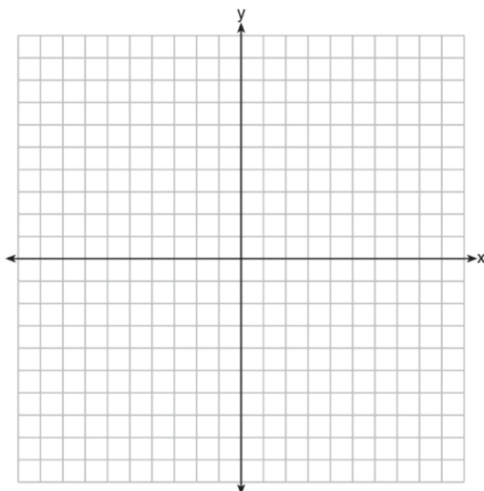
$$y = mx + b$$

Without a Calculator: Graph $y = -2x + 3$.



x	$-2x + 3$	y

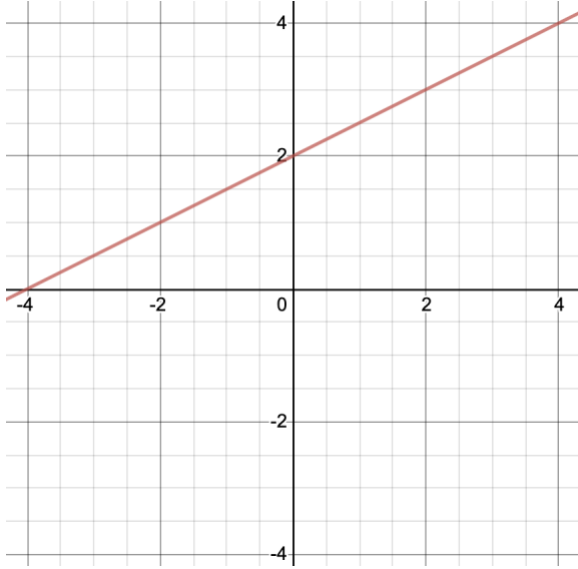
With a Calculator



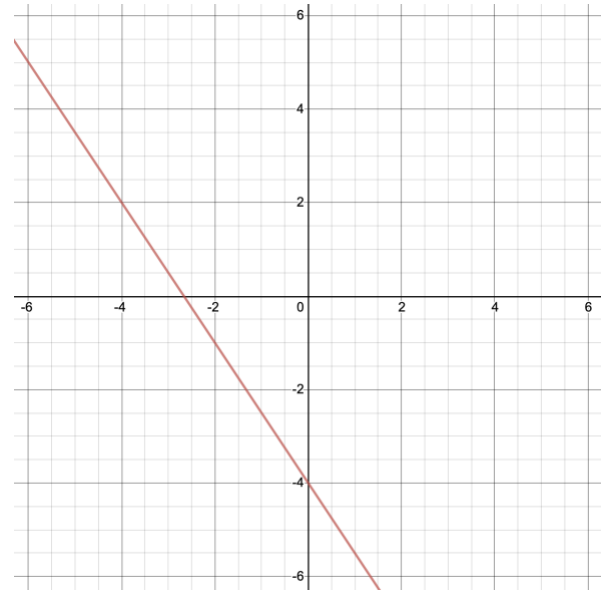
Is the point $(-24, 59)$ a solution to the equation?

Is the point $(-24, 59)$ on the line?

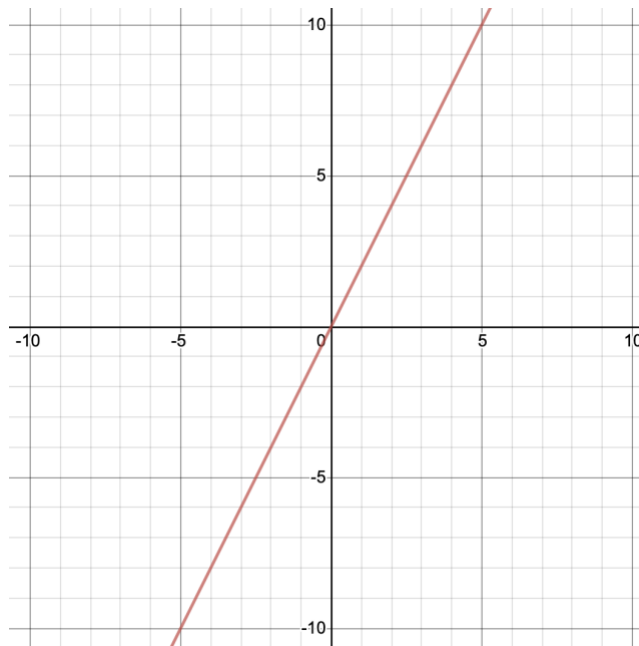
Write the equation of each linear function in $y = mx + b$ form.



Equation: _____



Equation: _____



Equation: _____

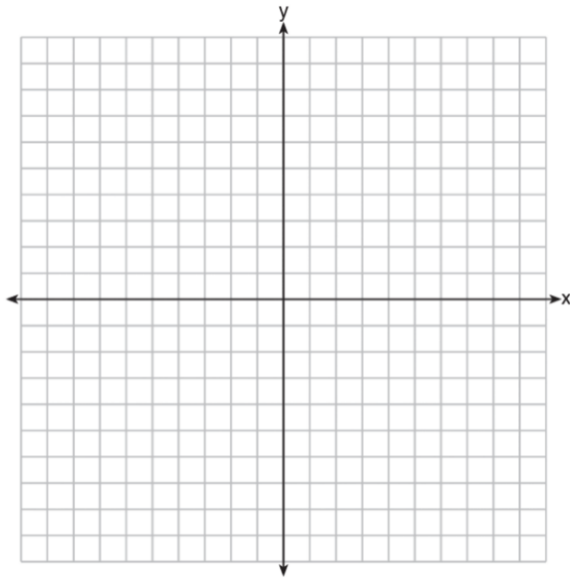
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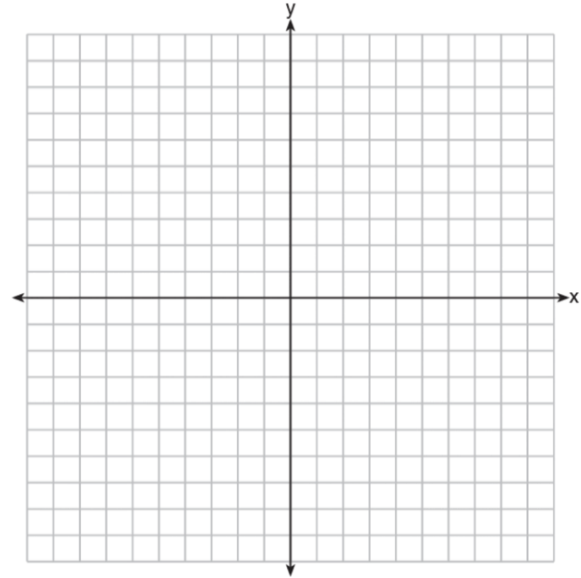
Classwork: Graphing Linear Equations

Graph each of the following linear equations.

1) $y = -\frac{5}{2}x - 1$

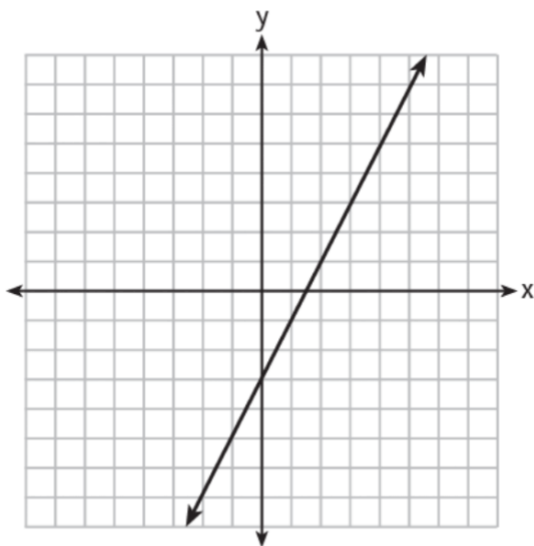


2) $y = 5x + 4$



3)

Which function has the same y -intercept as the graph below?



(1) $y = \frac{12 - 6x}{4}$

(3) $6y + x = 18$

(2) $27 + 3y = 6x$

(4) $y + 3 = 6x$

4)

The graph of a linear equation contains the points $(3,11)$ and $(-2,1)$. Which point also lies on the graph?

(1) $(2,1)$

(3) $(2,6)$

(2) $(2,4)$

(4) $(2,9)$

5)

The value of the x -intercept for the graph of $4x - 5y = 40$ is

(1) 10

(3) $-\frac{4}{5}$

(2) $\frac{4}{5}$

(4) -8

6)

How many of the equations listed below represent the line passing through the points $(2,3)$ and $(4,-7)$?

$$5x + y = 13$$

$$y + 7 = -5(x - 4)$$

$$y = -5x + 13$$

$$y - 7 = 5(x - 4)$$

(1) 1

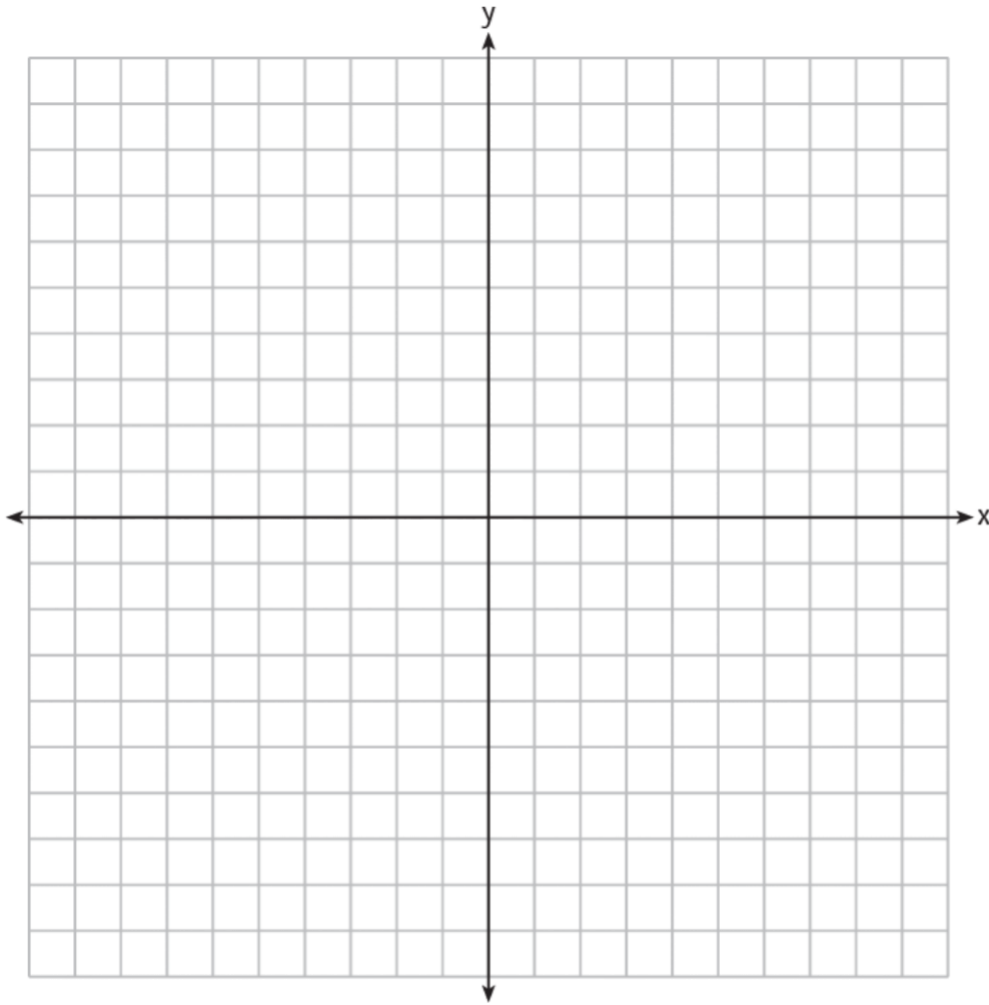
(3) 3

(2) 2

(4) 4

7)

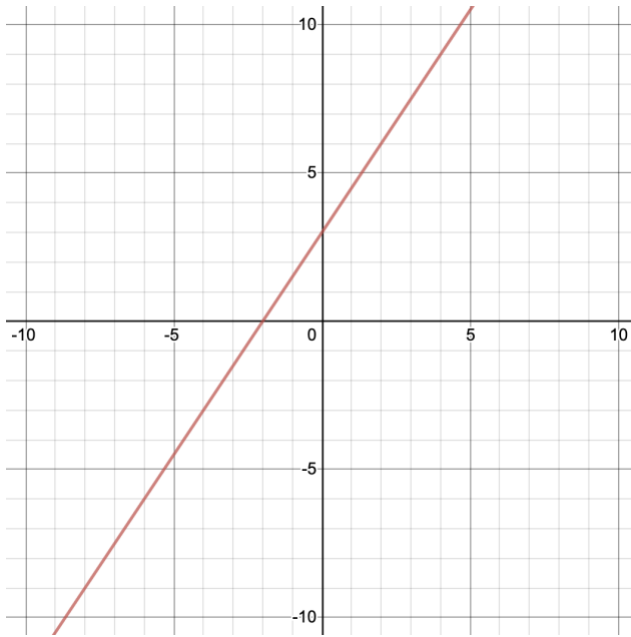
On the set of axes below, draw the graph of the equation $y = -\frac{3}{4}x + 3$.



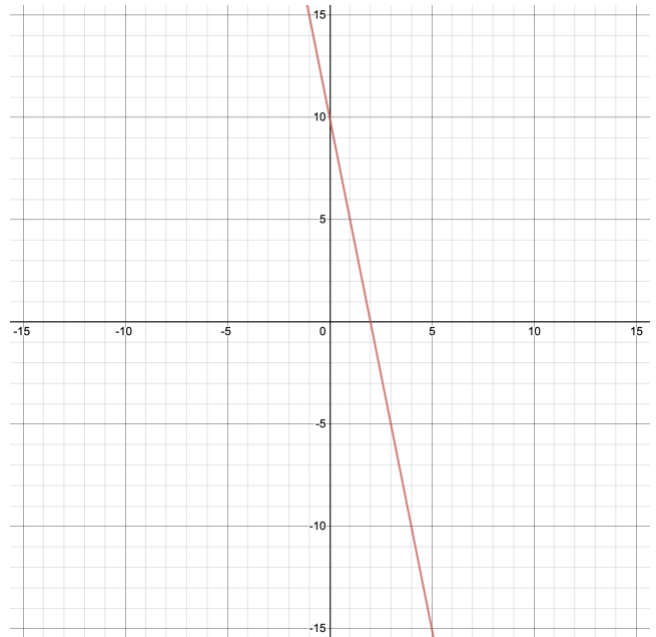
Is the point (3,2) a solution to the equation? Explain your answer based on the graph drawn.

Write the equation of each of the following lines in $y = mx + b$ form.

8)

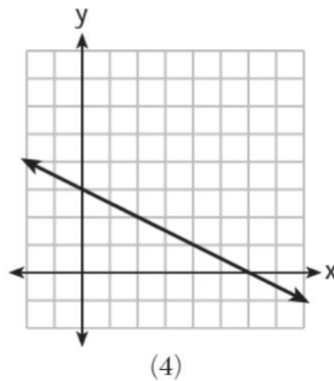
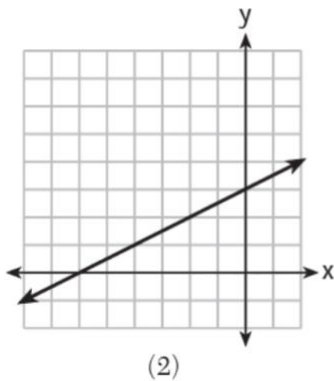
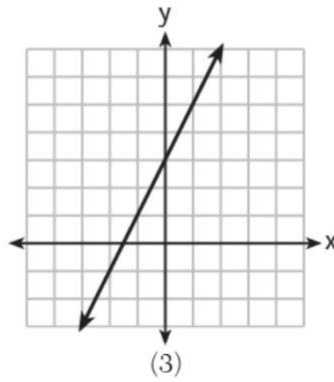
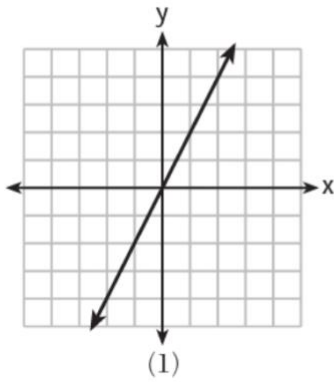


9)



10)

Which graph shows a line where each value of y is three more than half of x ?

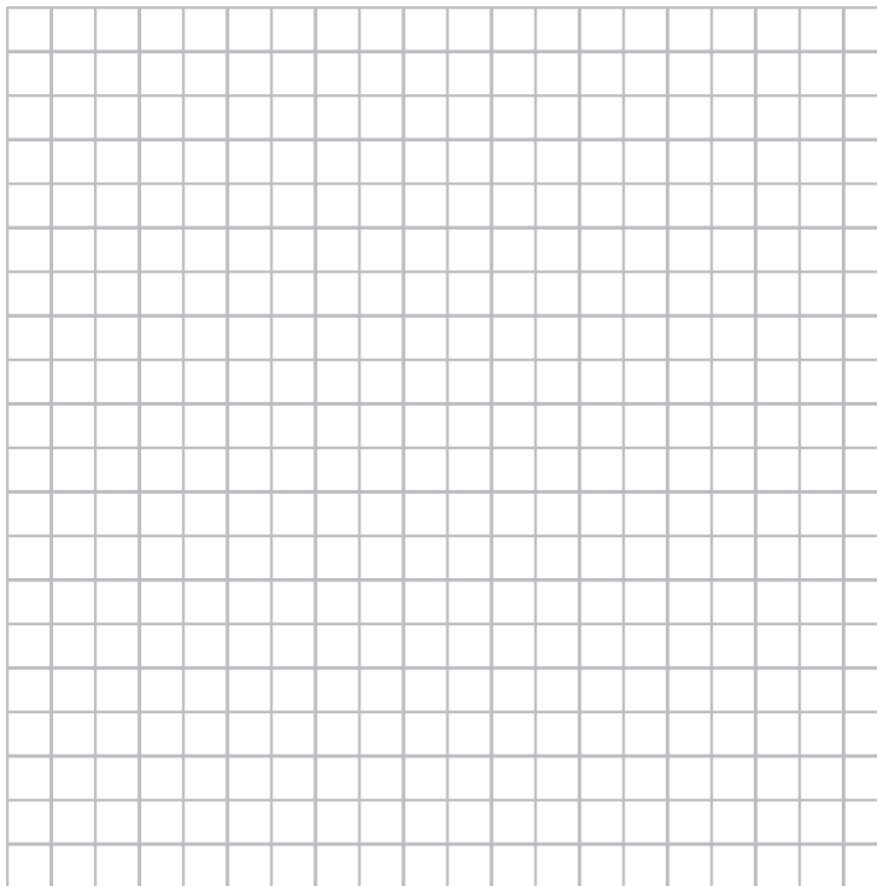


11)

Zeke and six of his friends are going to a baseball game. Their combined money totals \$28.50. At the game, hot dogs cost \$1.25 each, hamburgers cost \$2.50 each, and sodas cost \$0.50 each. Each person buys one soda. They spend all \$28.50 on food and soda.

Write an equation that can determine the number of hot dogs, x , and hamburgers, y , Zeke and his friends can buy.

Graph your equation on the grid below.



Determine how many different combinations, including those combinations containing zero, of hot dogs and hamburgers Zeke and his friends can buy, spending all \$28.50. Explain your answer.