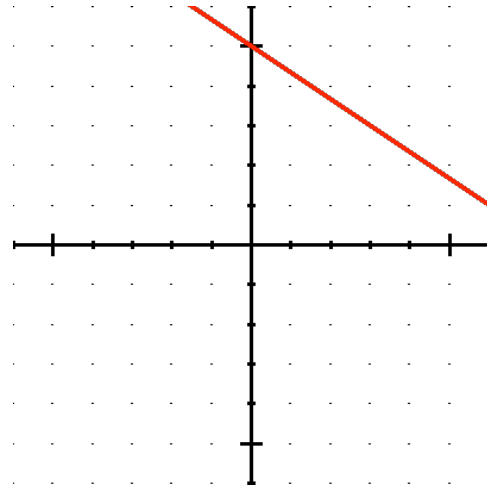


Warmup

1) Write the equation of a line with slope of 4 and passing through the point (0, -3).

2) Write the equation of the line below:



3) (a) Find the slope between the points (2, 3) and (0, 4).

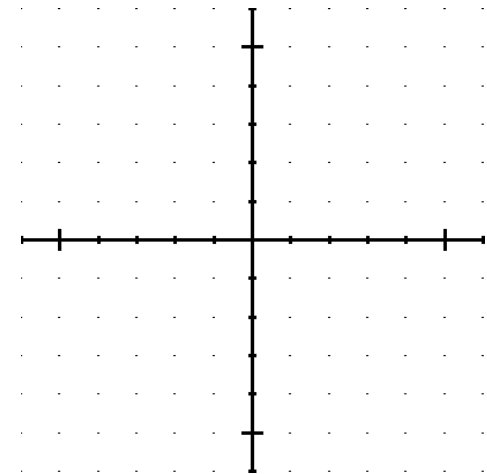
(b) Now write the equation of the line.

Writing Equations without the y-intercept.

(A) Write an equation given the slope and a point

Example: Write the equation of the line that has a slope of 3 and passes through the point (2, 5).

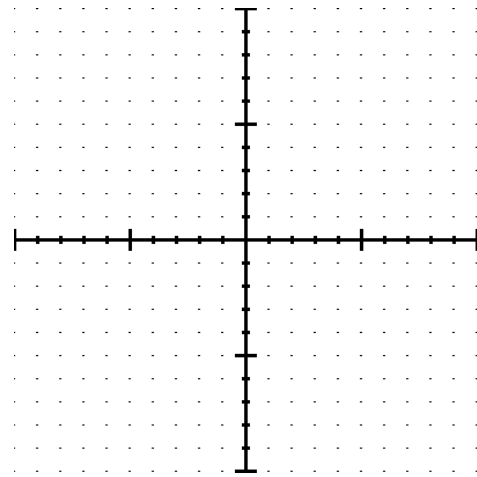
Check your answer on the graph.



(B) Write an equation given two points

Example: Write the equation of the line that passes through the points (3, 9) and (-2, -1).

Check your answer on the graph.



Practice - in your notebook

Write the equations of the following lines with the given information (there might be some *fractions*).

1) $m = 4$ and point: (-1, -6)

2) points: (-2, 3) and (1, -6)

3) $m = 0$ and point: (4, -3)

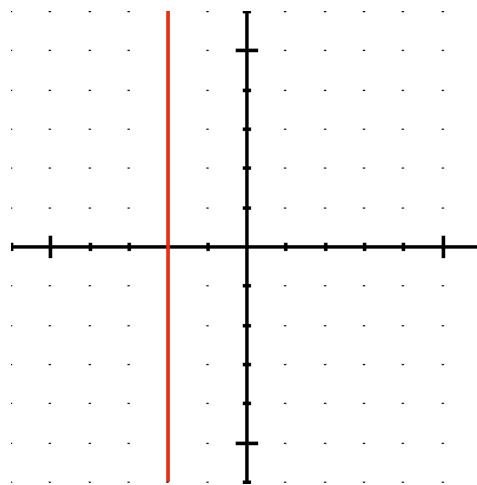
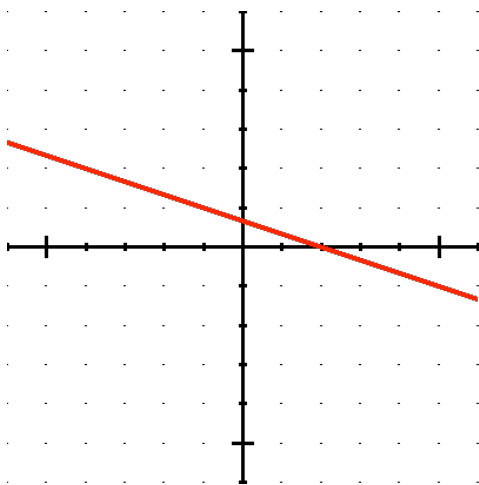
4) points: (-2, 4) and (1, 2)

5) slope is $\frac{1}{2}$ and passes through origin

6) Slope is undefined and passes through (1, -3)

7) Given this graph

8) Given this graph



Answers:

1) $y = 4x - 2$ 2) $y = -3x - 3$ 3) $y = -3$

4) $y = -\frac{2}{3}x + \frac{8}{3}$

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

6) $x = 1$

7) $y = -\frac{1}{3}x + \frac{2}{3}$

8) $x = -2$