

Warm up:

Graph.

1) $y = 7$

2) $x = -4$

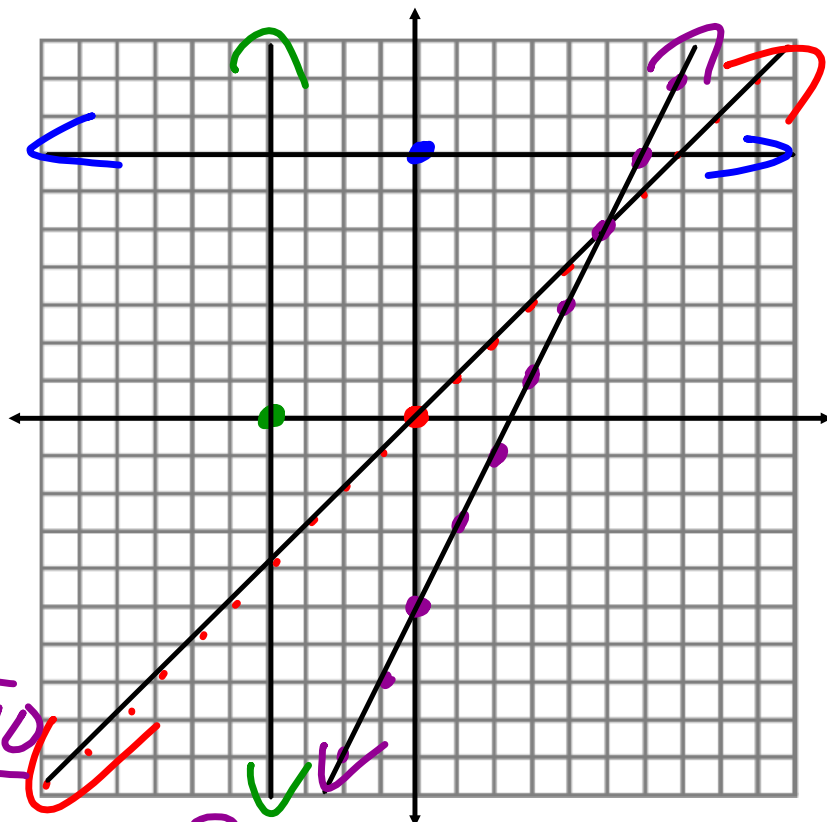
3) $y = x$ + 0

4) $4x - 2y = 10$

$$\begin{array}{r} -4x \quad -4x \\ \hline \end{array}$$

$$\begin{array}{r} -2y = -4x + 10 \\ \hline -2 \quad -2 \end{array}$$

$$y = 2x - 5$$

 $\frac{2}{1}$ rise
run

HW Solutions

Showdown

Write the function for the line through $(-8,8)$ and $(-5,5)$.

$$\frac{\Delta y}{\Delta x} = \frac{8-5}{-8-(-5)} = \frac{3}{-3} = -1$$

$$\begin{aligned}y &= -x + b \\5 &= -(-5) + b \\5 &= 5 + b \\-5 &= -5 \\ \hline 0 &= b\end{aligned}$$

$$y = -x$$

Write the function for the line through (9,3) and (-2,3).

$$\frac{\Delta y}{\Delta x} = \frac{3-3}{9-(-2)} = \frac{0}{11} = 0$$

$$y = 0x + b$$

$$3 = 0(9) + b$$

$$3 = 0 + b$$

$$3 = b$$

$$y = 0x + 3$$

$$y = 3$$

What is the slope of the line $x = -9$?

undefined

What is the slope and y-intercept of the line $y = 2 - 6x$?

$$\begin{aligned} \text{slope} &= -6 \\ \text{y-intercept} &= 2 \end{aligned}$$