DO NOW

What is the slope of the line that passes through the points (-3, 5) and (3, -4)?

x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

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

$$m = \frac{-9}{6} = \frac{-3}{2}$$

Jan 29-7:23 AM

Homework Answers

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

2) $y = 2x - 3$

3) $y = \frac{-6}{7}x + 6$

4) $y = \frac{4}{5}x + 12$

5) $y = 2x - 14$

6) $y = \frac{3}{4}x + 9$

7) $y = \frac{-2}{5}x - 4$

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

Oct 27-7:09 AM

Converting to Slope-Intercept Form

$y = mx + b$

m is the slope and *b* is the y-intercept

EX: Identify the slope and y-intercept of the line.

1) $y = x + 2$

$y = mx + b$

$m = \frac{1}{1}$ $b = 2$

2) $y = -2x$

$m = \frac{-2}{1}$ $b = 0$

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

$+2x \quad +2x$

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

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

$m = \frac{2}{3}$ $b = -1$

4) $6x - y = 5$

$-6x \quad -6x$

$\frac{-1y}{-1} = \frac{-6x}{-1} + \frac{5}{-1}$

$y = 6x - 5$

$m = \frac{6}{1}$

$b = -5$

Oct 30-7:38 AM

STEP 1: Rewrite the equation in slope- intercept form. **y = mx + b**

STEP 2: Identify the slope **(m)** & y-intercept **(b)**.

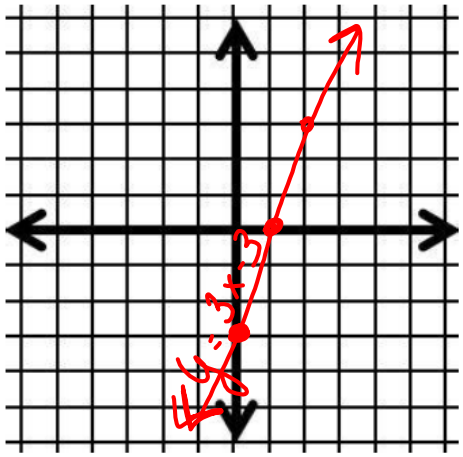
STEP 3: Plot the y-intercept **(b)**.

STEP 4: Use the slope **(m)** to plot additional points (starting from the y-intercept)

1) $y = 3x - 3$

$m = \frac{3}{1}$ $\frac{\text{rise}}{\text{run}}$

$b = -3$



Oct 21-11:19 AM

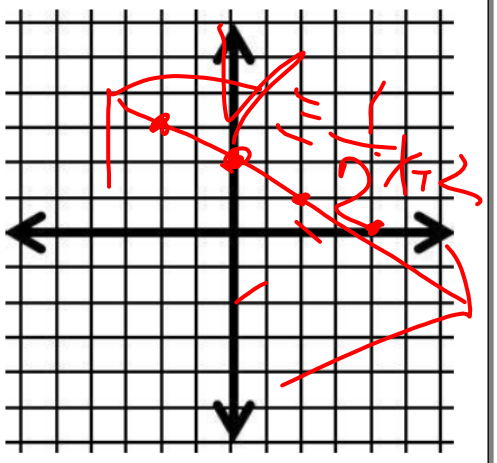
STEP 1: Rewrite the equation in slope- intercept form. **y = mx + b**

STEP 2: Identify the slope **(m)** & y-intercept **(b)**.

STEP 3: Plot the y-intercept **(b)**.

STEP 4: Use the slope **(m)** to plot additional points (starting from the y-intercept)

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



$m = -\frac{1}{2}$

$b = 2$

Oct 21-11:19 AM

STEP 1: Rewrite the equation in slope- intercept form. **y = mx + b**

STEP 2: Identify the slope **(m)** & y-intercept **(b)**.

STEP 3: Plot the y-intercept **(b)**.

STEP 4: Use the slope **(m)** to plot additional points (starting from the y-intercept)

3) $3y + 2x = 3$

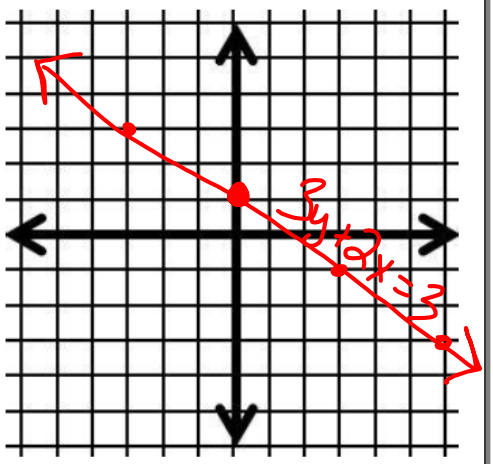
$-2x \quad -2x$

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

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

$m = \frac{-2}{3}$

$b = 1$



Apr 2-8:08 AM

STEP 1:
Rewrite the equation in slope- intercept form.
y = mx + b

STEP 2:
Identify the slope **(m)** & y-intercept **(b)**.

STEP 3:
Plot the y-intercept **(b)**.

STEP 4:
Use the slope **(m)** to plot additional points (starting from the y-intercept)

4) $2x - y = 5$

$-2x \quad -2x$

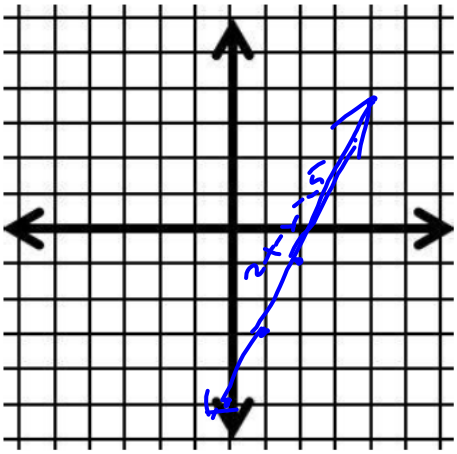
$-y = -2x + 5$

$-1 \quad -1 \quad -1$

$y = 2x - 5$

$m: +2$

$b: -5$



Apr 2-8:08 AM