Graphing lines

1) Plot pts
2) x- & y-intercepts
3) $y = mx + b$

Slope-intercept form

1 a)

$y = -3x + 6$

$f(x) = \underbrace{-3}_{m}x + \underbrace{6}_{b}$

x	y
0	6
2	0

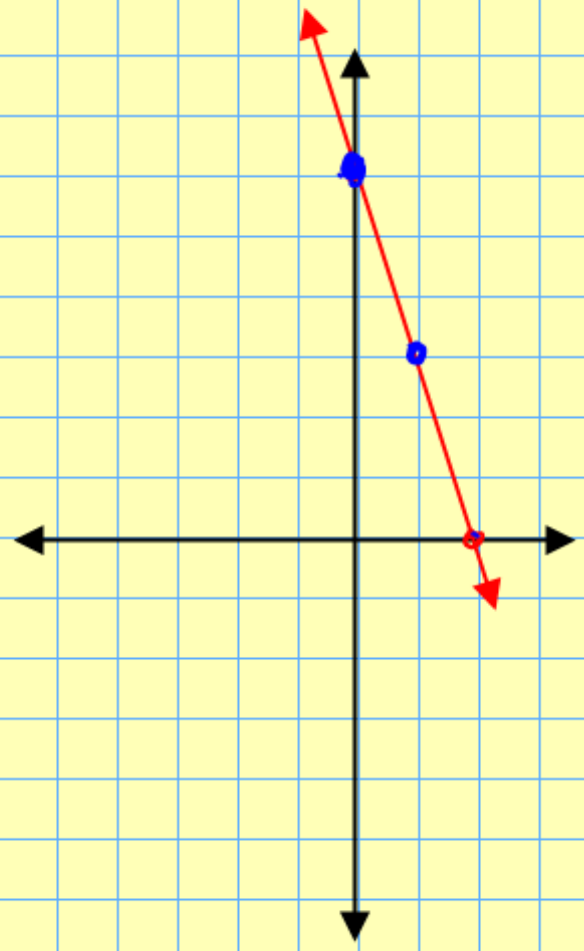
y:

x_i

$0 = -3x + 6$

$3x = 6$

$x = 2$



15)

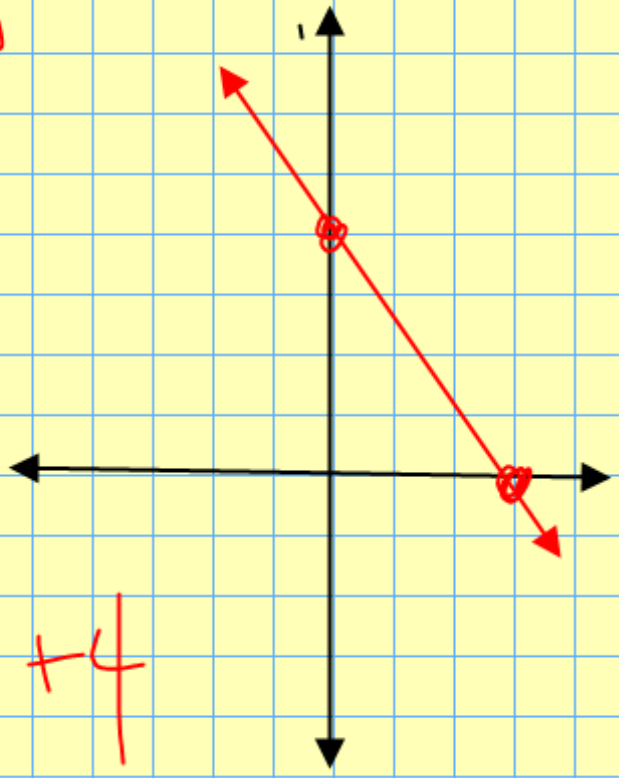
$$12 - \frac{1}{3}x + 12 = \frac{12}{4}y$$

$$\frac{-4x}{3} + \frac{12}{3} = 3y$$

$$12 = 4x + 3y$$

x	y
0	4
3	0

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



c) ①

$y = 5$

no x-intercept

0 Slope

x	y
-1	5
0	5
2	5

$y = mx + b$

$y = 0x + 5$

$m = \frac{\text{rise}}{\text{run}} = \frac{0}{4} = 0$

c) ②

$x = -2$

undefined slope

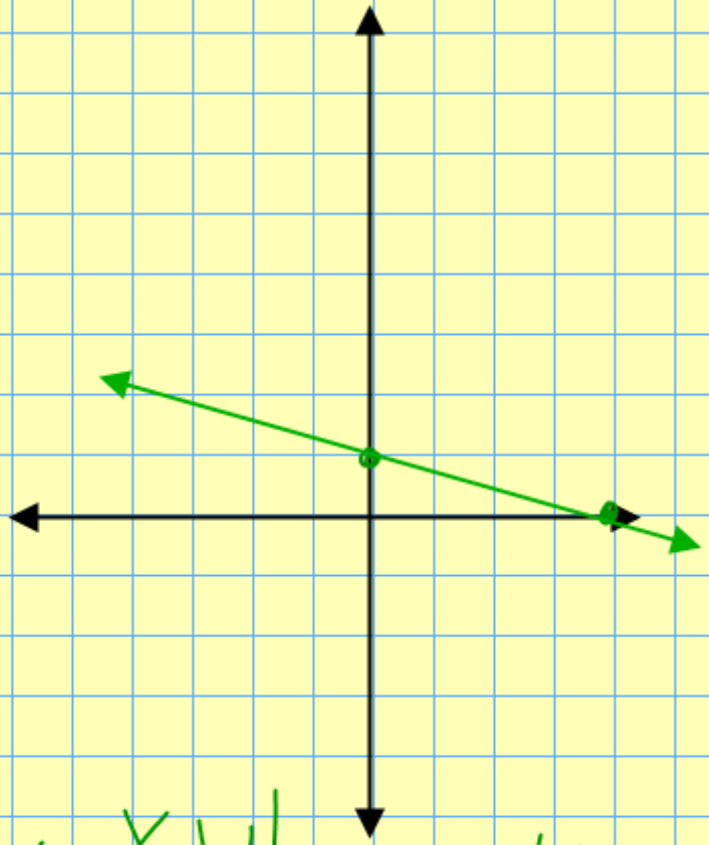
$m = \frac{\text{rise}}{\text{run}} = \frac{2}{0} = \text{undefined}$

(d)

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

$x + 4y = 4$

x	y
0	1
4	0



$\frac{4y}{4} = \frac{-x+4}{4}$ $\frac{4}{4}$ $\rightarrow$ $y = -\frac{1}{4}x + 1$

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2.4 Graphs of Linear Functions

Overview

Objective: Graph linear functions by using intercepts.

11 12 13 14 15 16 17 18 19 20

2.4.13

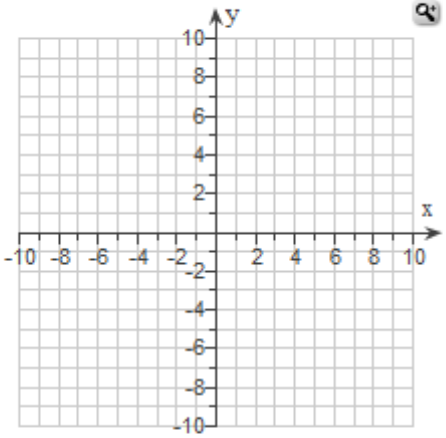
2 correct | 0 of 23 complete

Graph the function by using intercepts.

$1.3x - 2.6y = 7.8$

Use the graphing tool to graph the equation. Use the intercepts when drawing the line. If only one intercept exists, use it and another point to draw the line.

Click to enlarge graph



Delete ? Clear

$13x - 26y = 78$

x	y
0	-3
6	0

$-26y = 78$

$13x = 78$

Help Me Solve This

View an Example

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Calculator

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More

To pop up your graph, click the Click to enlarge graph button.

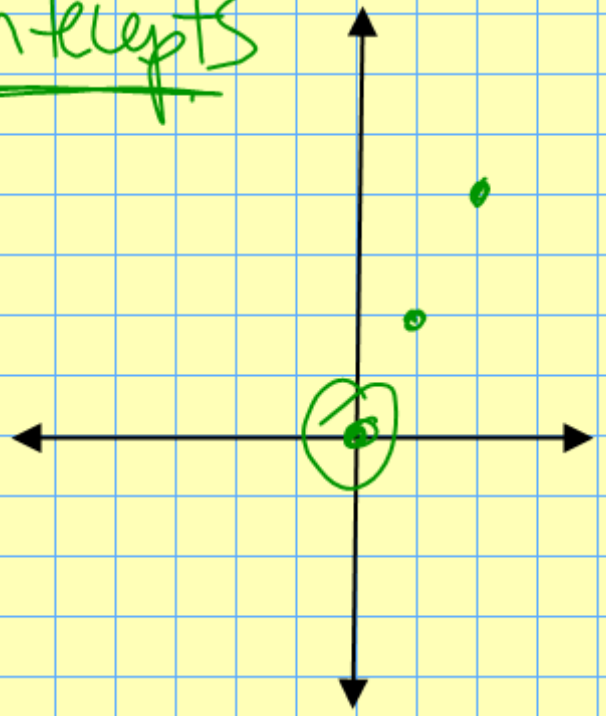
All parts showing

Clear All Check Answer Close

$y = 2x$

graph the intercepts

x	y
0	0



$\frac{10}{2} = 5$

$\frac{0}{0}$:und.

$\frac{0}{2} = 0$

$\frac{2}{0} = \text{und}$