HW: 4.3/11-31 odd

Warm up:

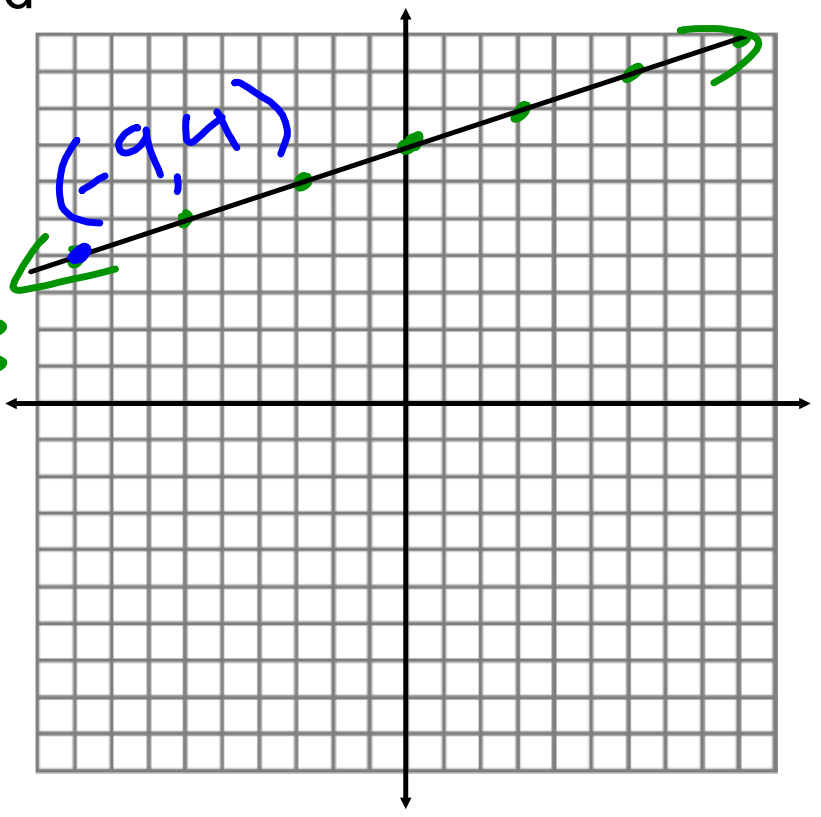
Graph

$$y - 4 = \frac{1}{3}(x + 9)$$

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

$+4 \qquad +4$

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



Point-Slope Form

$$y - y_1 = m(x - x_1)$$

m = slope

(x_1, y_1) = point on the line

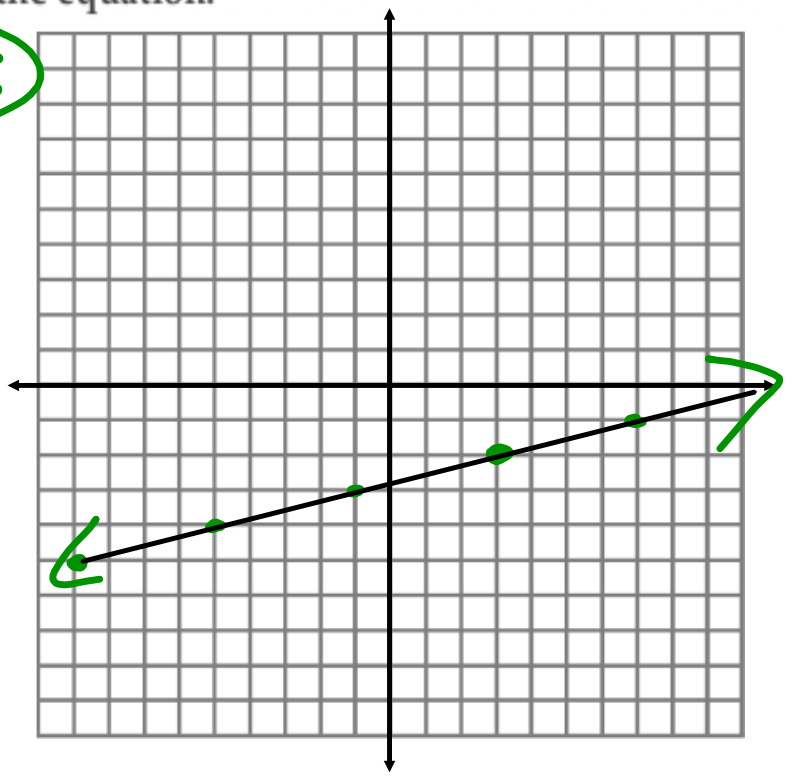
$y + 8 = 2(x - 3)$

$(3, -8)$ slope = 2

February 9, 2022

Write an equation in point-slope form for the line that passes through $(3, -2)$ with a slope of $\frac{1}{4}$. Then graph the equation.

$y + 2 = \frac{1}{4}(x - 3)$



Write an equation for the line...

point-slope form

1) through (2, 8) with slope 5

$y - 8 = 5(x - 2)$

2) through (-3,7) with slope -3/4

$y - 7 = -\frac{3}{4}(x + 3)$

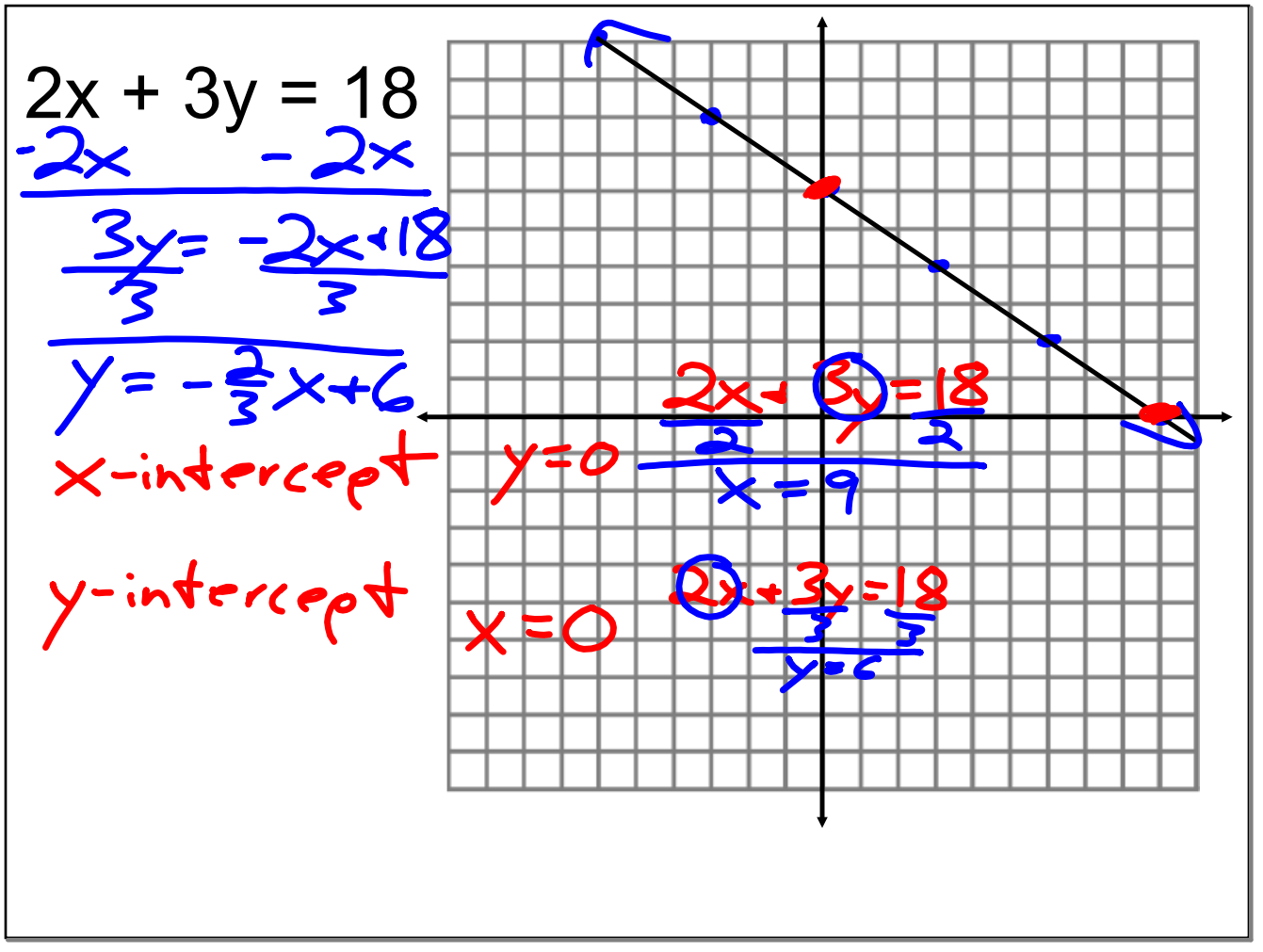
3) through (-6,-1) with slope 2/5

$y + 1 = \frac{2}{5}(x + 6)$

Standard Form

$$ax + by = c$$

$3x + 2y = 12$

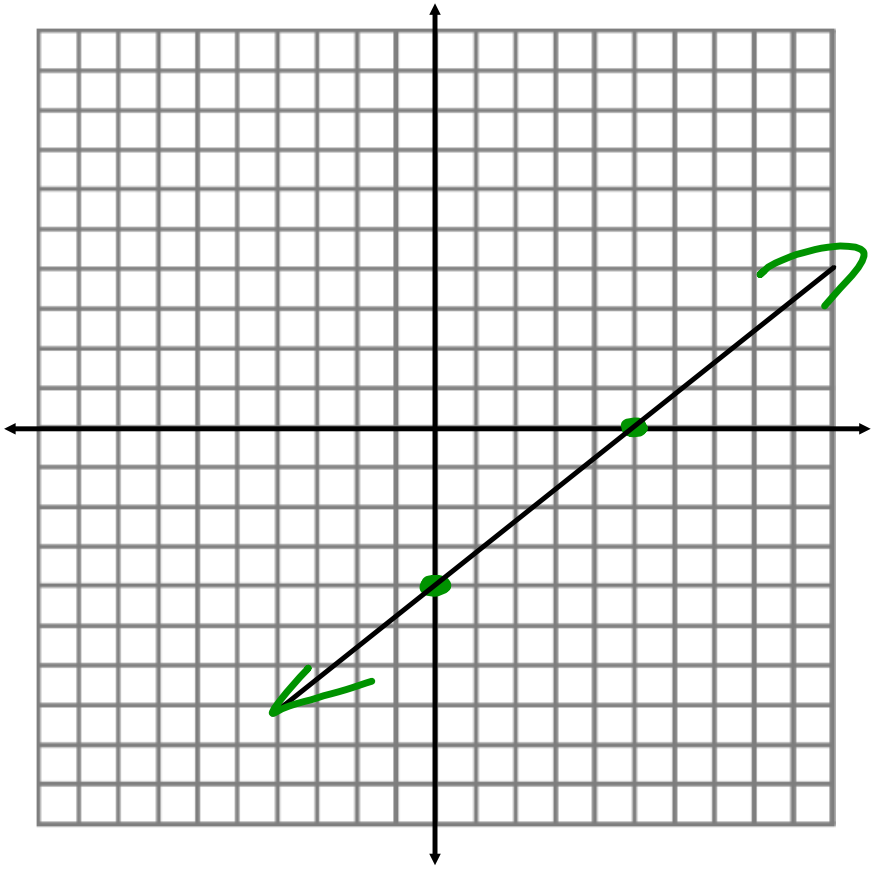

2x + 3y = 18
-2x -2x
3y = -2x + 18
3 3
y = -2/3x + 6
x-intercept
y-intercept
y=0
2x + 3y = 18
2 2
x = 9
x=0
2x + 3y = 18
3 3
y = 6

February 9, 2022

$4x - 5y = 20$

x-int = 5

y-int = -4



Write the following function in standard form.

$$y+4=\frac{2}{3}(x+7)$$

$3(y+4)=(\frac{2}{3}x+\frac{14}{3})3$

$3y+12=2x+14$

$-12 \quad -12$

$3y=2x+2$

$-2x \quad -2x$

$-2x+3y=2$

$\times(-1) \quad \times(-1)$

$2x-3y=-2$

February 9, 2022

4.3/1-7, 10

February 9, 2022