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

3) What is the equation of the line in point-slope form with the given point and given slope?

a) Point: (3, 4)
Slope: 7

$y - 4 = 7(x - 3)$

b) Point: (3, 4)
Slope: -1/2

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

4) What is the equation of the line in standard form? Use integer coefficients.

a) $y = \frac{3}{8}x - 5$

$-\frac{3}{8}x \quad -\frac{3}{8}x$

$8\left(-\frac{3}{8}x + y = -5\right) \rightarrow -3x + 8y = -40$

$Ax + By = C$

b) $y = -\frac{5}{7}x + 1$

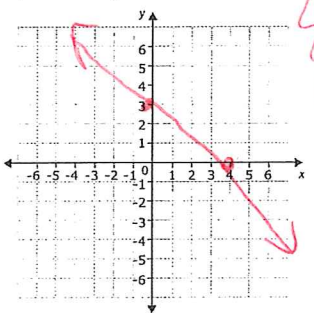
$+\frac{5}{7}x \quad +\frac{5}{7}x$

$7\left(\frac{5}{7}x + y = 1\right) \rightarrow 5x + 7y = 7$

-2, -1, 0, 1, 2, 3 ....

5) Find the intercepts and graph the equation.

a) 3x + 4y = 12

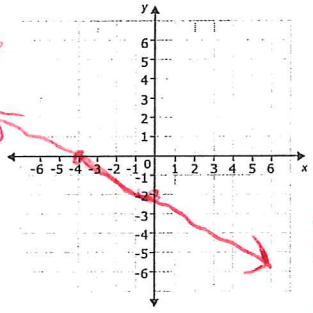


x-int: plug y=0
y-int: plug x=0

x-int: $3x + 4(0) = 12$
$3x = 12$
$x = 4$

y-int: $3(0) + 4y = 12$
$y = 3$

b) -2x – 4y = 8



x-int:
$-2x = 8$
$x = -4$

y-int:
$-4y = 8$
$y = -2$

6) The office manager of a small office ordered 125 packs of printer paper. Based on the average daily use, she knows that the paper will last about 65 days. Which graphs shows this situation correctly? How many packs of paper should the manager have after 5 days?

120 packs

12) Let f(x) = 2x + 1 and g(x) = -3x + 2. Find $f \circ g(-1)$

First find: $f(g(x)) = f(-3x+2) = 2(-3x+2)+1$

Plug in -1: $2(-3(-1)+2)+1 = 11$

13) Let f(x) = -3x – 2 and g(x) = 4x + 1. Find $f \circ g(-2)$

First find: $f(g(x)) = f(4x+1) = -3(4x+1)-2$

Plug in -2: $-3(4(-2)+1)-2 = 19$