Section 7.1b – Practice Questions

1. Are the following points solutions to the given equations? Are they POINTS on the given LINE?

a) $(1,-3)$ $y = 3x - 5$

x, y

sub in ↑

$-3 = 3(1) - 5$

$-3 = 3 - 5$

$-3 = -2$ NO

b) $(0,\ 5)$ $y = \frac{2}{3}x + 5$

$5 = \frac{2}{3}(0) + 5$

$5 = 5$ YES

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

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

$7 = -3 + 4$

$7 = 1$ NO

d) $(8,-1)$ $y = -\frac{1}{8}x$

$-1 = -\frac{1}{8}(8)$

$-1 = -1$ YES

e) $(3,3)$ $y = \frac{2}{3}x + 1$

$3 = \frac{2}{3}(3) + 1$

$3 = 2 + 1$

$3 = 3$ YES

2. Find 3 different coordinates that exist on the given lines. Remember there are an infinite amount of them.

a) $y = 3x - 5$

let $x = 0$

$y = 3(0) - 5$

$y = -5$

$(0, -5)$

$x = 1$

$y = 3(1) - 5$

$y = 3 - 5$

$y = -2$

$(1, -2)$

$x = 2$

$y = 3(2) - 5$

$y = 6 - 5$

$y = 1$

$(2, 1)$

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b) $y = -\frac{6}{7}x + 8$

let $x = 0$

$y = -\frac{6}{7}(0) + 8$

$y = 8$

$(0, 8)$

$x = 7$

$y = -\frac{6}{7}(7) + 8$

$y = -6 + 8$

$y = 2$

$(7, 2)$

$x = -7$

$y = -\frac{6}{7}(-7) + 8$

$y = 6 + 8$

$y = 14$

$(-7, 14)$

picked 7 and -7 so denominator will cancel

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c) $y = \frac{3}{5}x - 6$

$x = 0$

$y = \frac{3}{5}(0) - 6$

$y = -6$

$(0, -6)$

$x = 5$

$y = \frac{3}{5}(5) - 6$

$y = 3 - 6$

$y = -3$

$(5, -3)$

$x = -5$

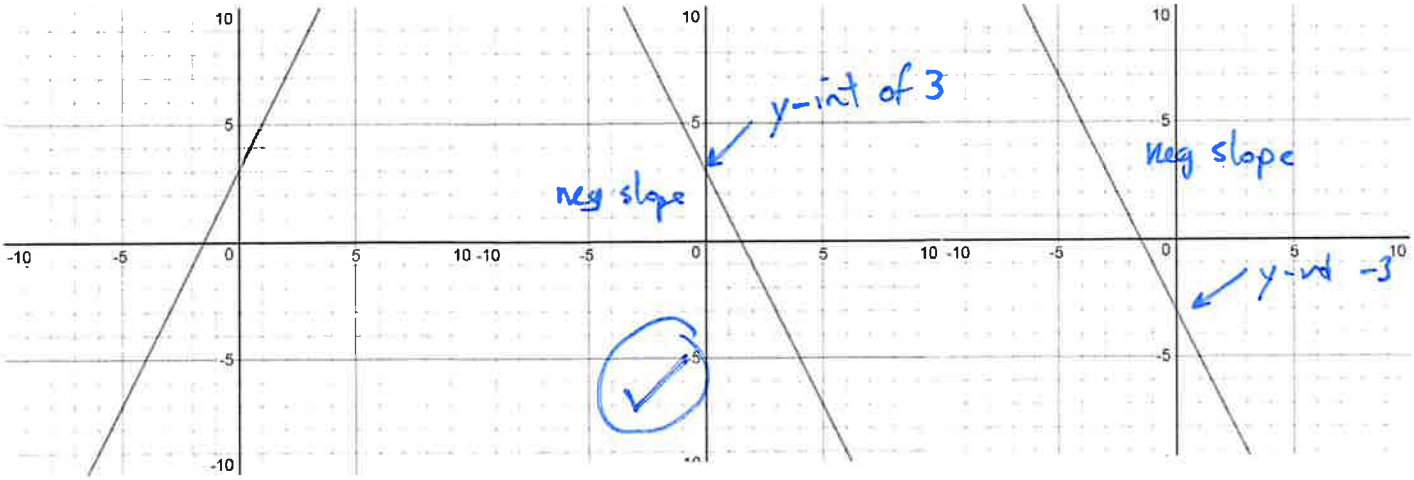
$y = \frac{3}{5}(-5) - 6$

$y = -3 - 6$

$y = -9$

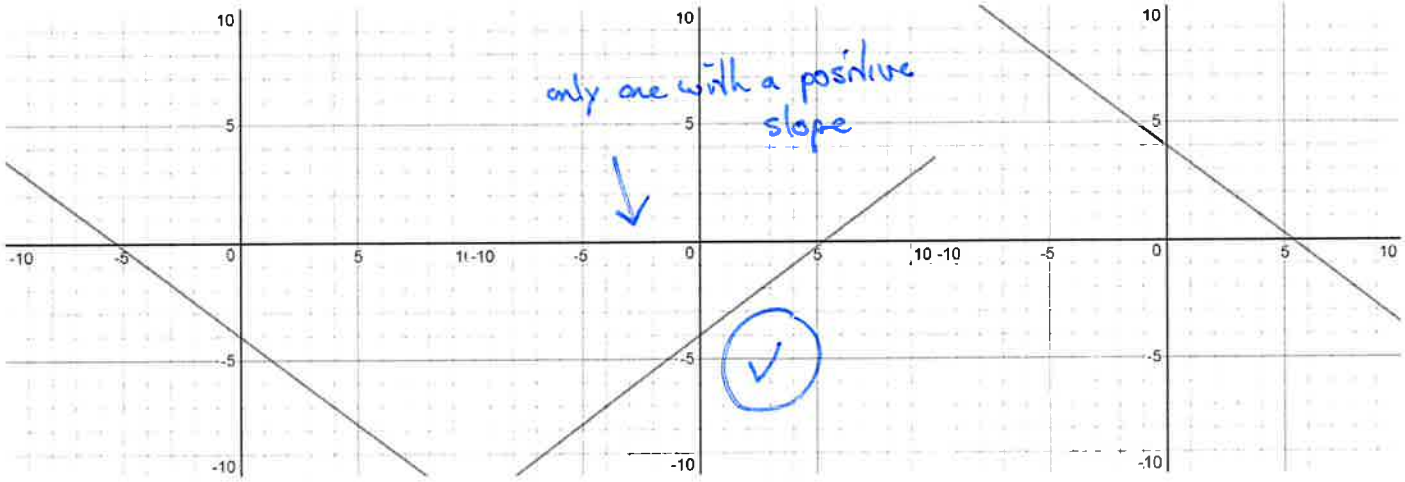
$(-5, -9)$

3. Which graph represents $y = -2x + 3$ How do you know?



Explanation Goes Here

4. Which graph represents $y = \frac{3}{4}x - 4$ How do you know?



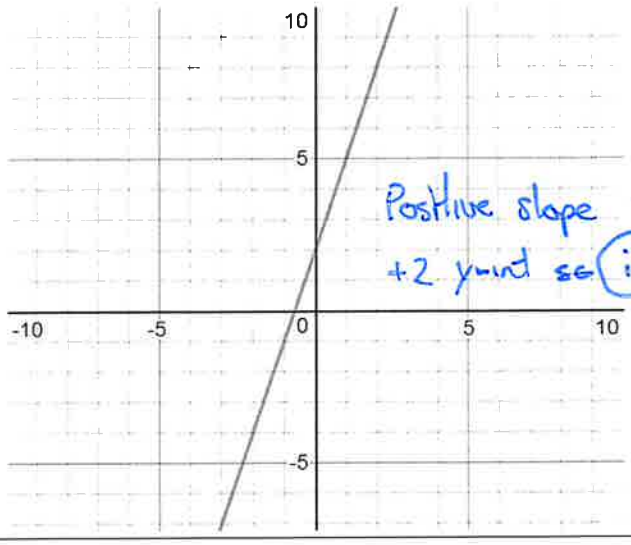
Explanation Goes Here

5. Which equation matches the graph below:

$y = 3x + 2$

$y = -3x + 2$

$y = 3x - 2$



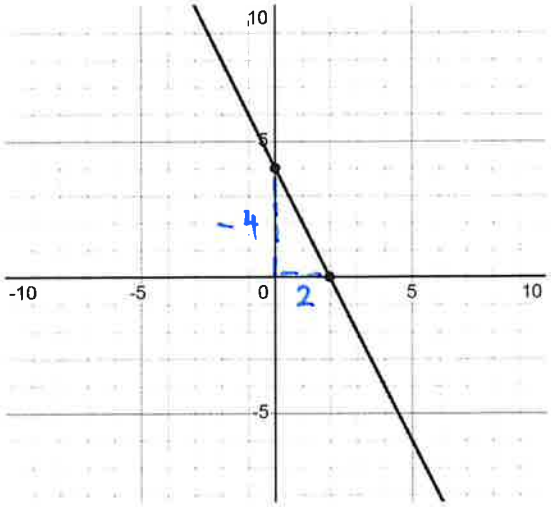
Positive slope so i) or iii)

+2 y-int so i) or ii)

Explanation Goes Here

6. Use the given y-intercept and determine the slope of the following lines to write their equations in Slope-Intercept Form

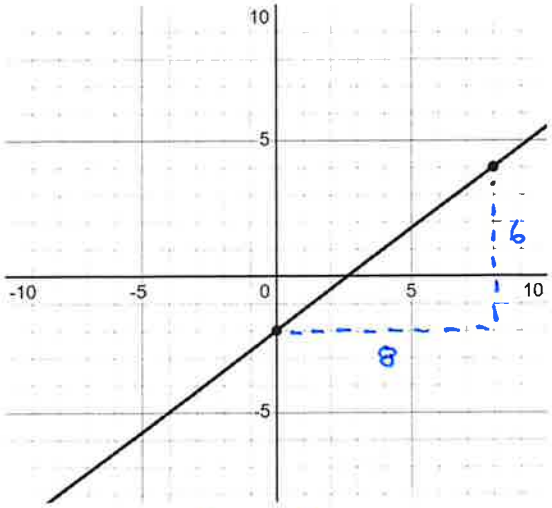
a) Equation: $y = -2x + 4$



slope: $\frac{-4}{2} = -2$

y-int: (0,4)

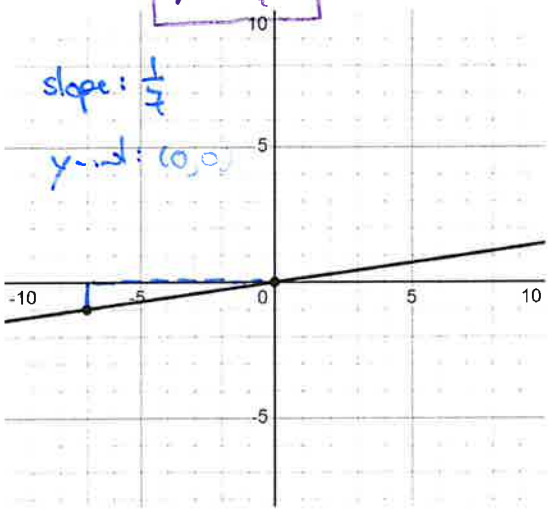
b) Equation: $y = \frac{3}{4}x - 2$



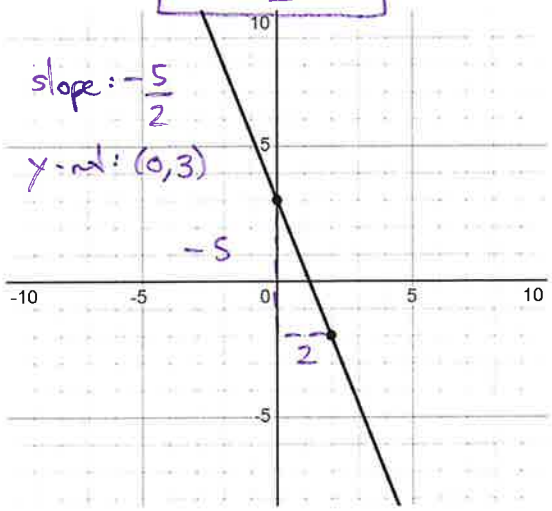
slope: $\frac{6}{8} = \frac{3}{4}$

y-int: (0,-2)

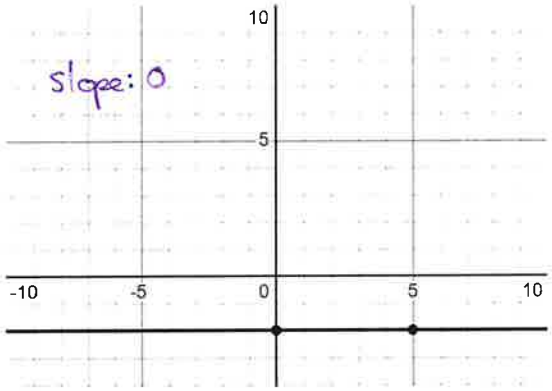
c) Equation: $y = \frac{1}{7}x$



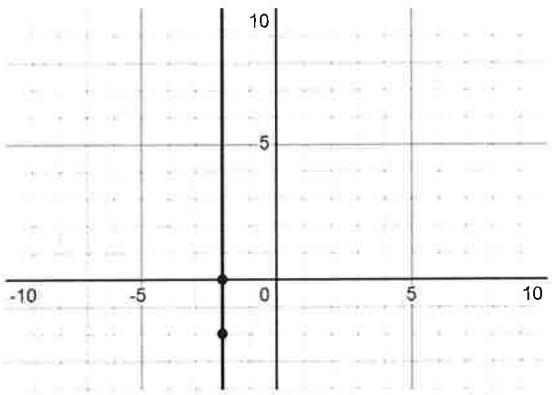
d) Equation: $y = -\frac{5}{2}x + 3$



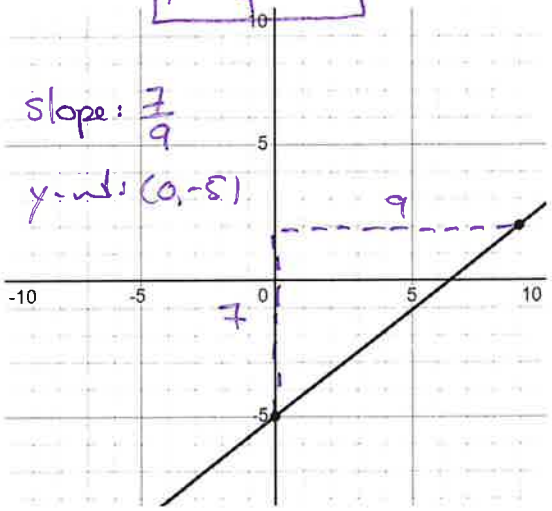
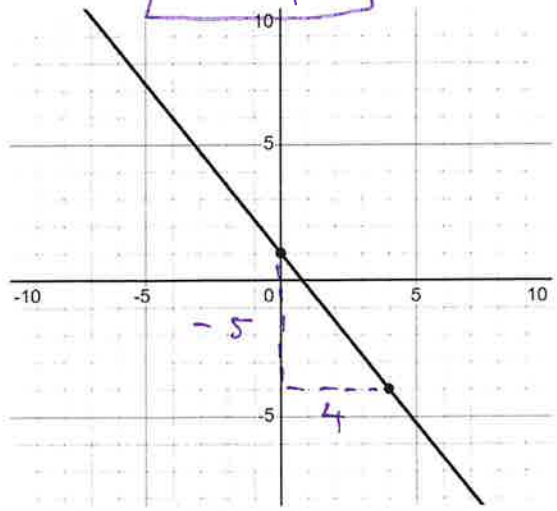
e) Equation: $y = -2$



f) Equation: $x = -2$



g) Equation: $y = \frac{7}{9}x - 5$



h) Equation: $y = -\frac{5}{4}x + 1$