Math 1201 Worksheet: Sec 6.5 and 6.6 **ANSWERS**

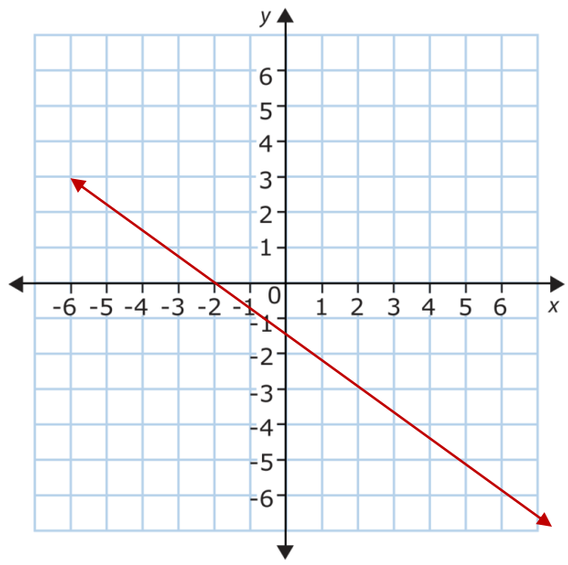
1. What number is the slope of the line $y - 1 = -2(x + 4)$?

   A) – 1 B) – 2 C) 2 D) 4

2. What are the coordinates of one point on the line $y - 1 = -2(x + 4)$?

   A) (– 4, – 1) B) (– 4, – 1) C) (4, 1) D) (– 4, 1)

3. Refer to the line $y + 3 = -\frac{3}{4}(x - 2)$.



a) What is the slope?

Slope = $-\frac{3}{4}$

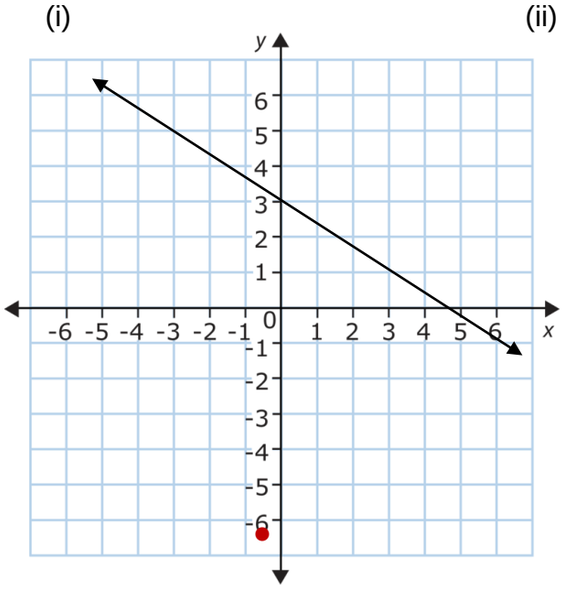
b) What are the coordinates of the point?

Point (2 , – 3)

c). Graph the line.

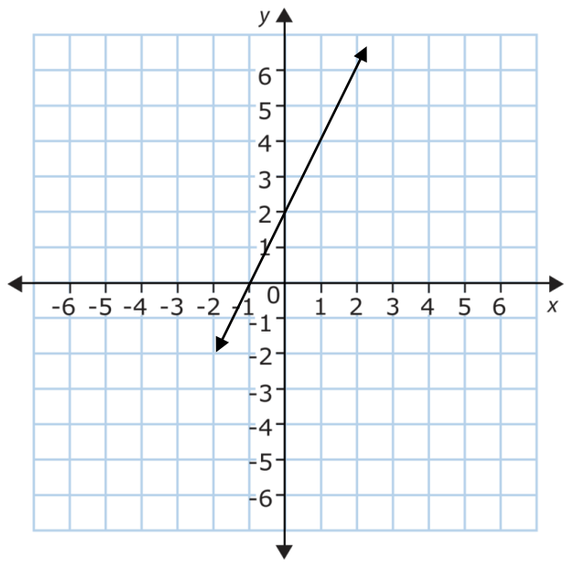
4. Write the equation for each line in a) Slope-point form b) Slope-intercept form

(i)



$y - 5 = -\frac{2}{3}(x + 3)$ AND $y = -\frac{2}{3}x + 3$

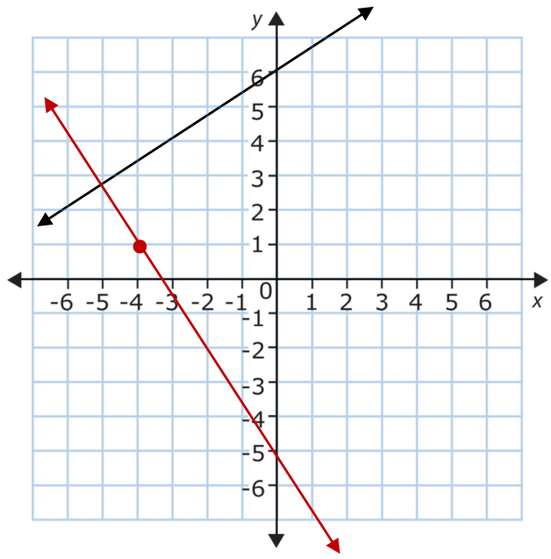
(ii)



$y - 4 = 2(x - 1)$ AND $y = 2x + 2$

5. The graph of $y = \frac{2}{3}x + 6$ is given.

   Write an equation for the line that passes through A(– 4,1) and is perpendicular to the line $y = \frac{2}{3}x + 6$.



$y = -\frac{3}{2}x - 5$

6. A line passes through P(– 3, 4) and Q (3, – 6). Write the equation of the line in slope-point form.

$y - 4 = -\frac{5}{3}(x + 3)$ OR $y + 6 = -\frac{5}{3}(x - 3)$

7. Write each equation in general form.

a) $y = 2x - 1$

$2x - y - 1 = 0$

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

$x + 3y - 12 = 0$

8. A line passes through F(– 1, 8) and has slope – 3. Write the equation of the line in

a) slope point form.

$y - 8 = -3(x + 1)$

b) general form.

$3x + y - 5 = 0$

9. Refer to the equation of a line 3x + 4y – 16 = 0.

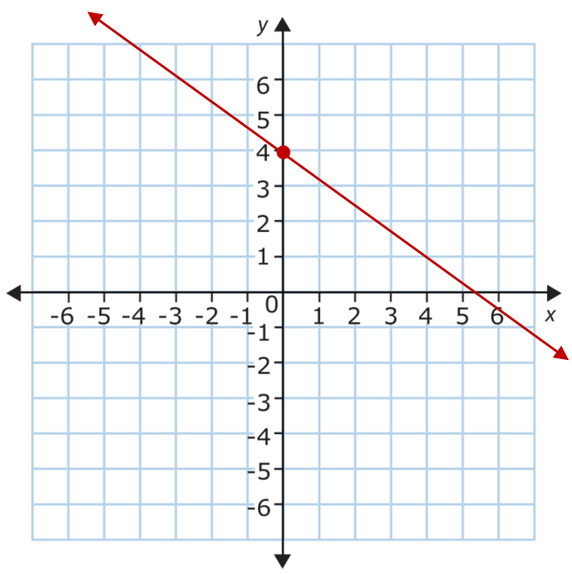
a) Write the equation in slope-intercept form.

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

b) What is the slope of the line? $-\frac{3}{4}$

c) What is the y-intercept of the line? 4

d) Graph the line using the slope and y-intercept.



10. Refer to the equation of a line 3x – 2y + 12 = 0.

a) Determine the x-intercept.

(4, 0)

b) Determine the y-intercept.

(0, 6)

c) Graph the line using the intercepts.