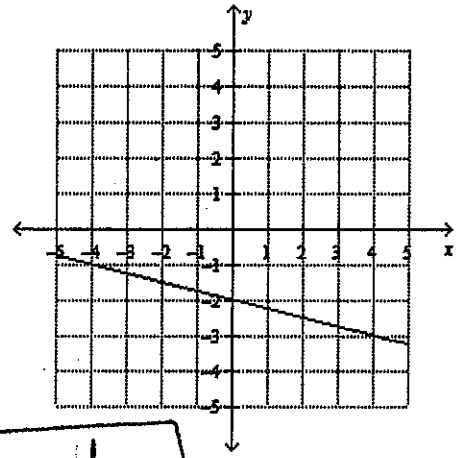
Algebra Chapter 5 Test Review

1.a) Find the slope of line formed by the points (3, -9) and (-6, 8).

$\frac{8-(-9)}{-6-3}$

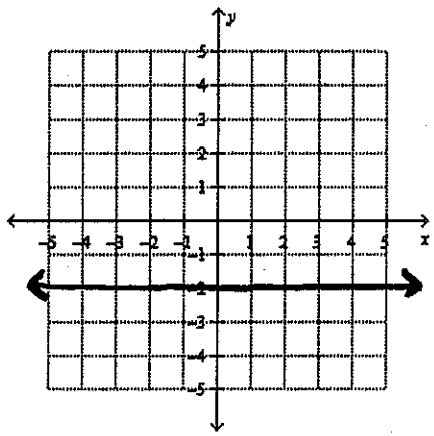
$\frac{17}{-9}$

b) **Find the slope of the line.**

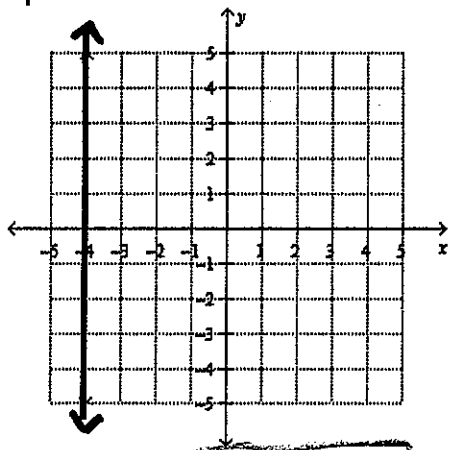


$m = \frac{-1}{4}$

2. Find the slope and write the equation of each line below.



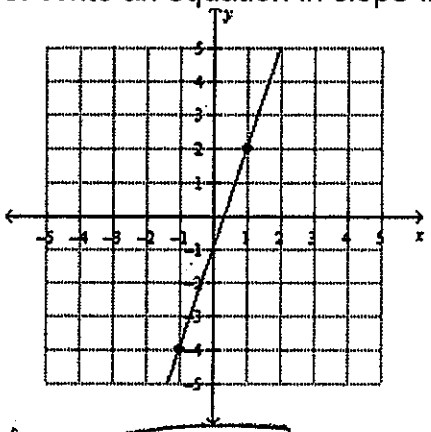
$m = 0$, $y = -2$



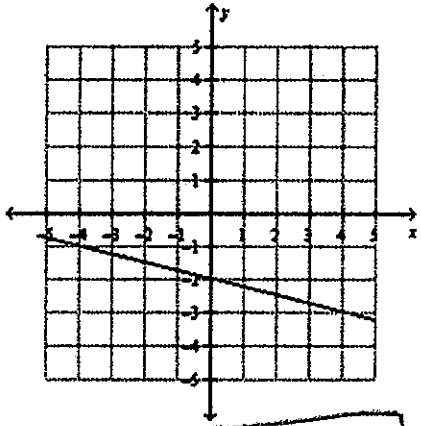
m = undefined

$x = -4$

3. Write an equation in slope-intercept form for each line.



$y = 3x - 1$



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

4. Transform each line into slope-intercept form.

a) $5x - 6y = -18$

$-6y = -5x - 18$

$\frac{-6y}{-6} = \frac{-5x}{-6} - \frac{18}{-6}$

$y = \frac{5}{6}x + 3$

b) $y - 3 = -2(x - 4)$

$y - 3 = -2x + 8$

$y = -2x + 11$

Algebra Chapter 5 Test Review

5. a) Write the equation of the line that is perpendicular to the line $y = -3x + 5$ and passes through the point (3, 2).

$y = mx + b$

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

$2 = 1 + b$

$1 = b$

$m = \frac{1}{3}$

$b = 1$

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

b) Write the equation of the line that is parallel to the line $4x - 2y = 14$ and passes through the point (1, -10)

$-2y = -4x + 14$

$\frac{-2y}{-2} = \frac{-4x}{-2} + \frac{14}{-2}$

$y = 2x - 7$

$m = 2$

$b = -12$

$y = 2x - 12$

$y = mx + b$

$-10 = 2(1) + b$

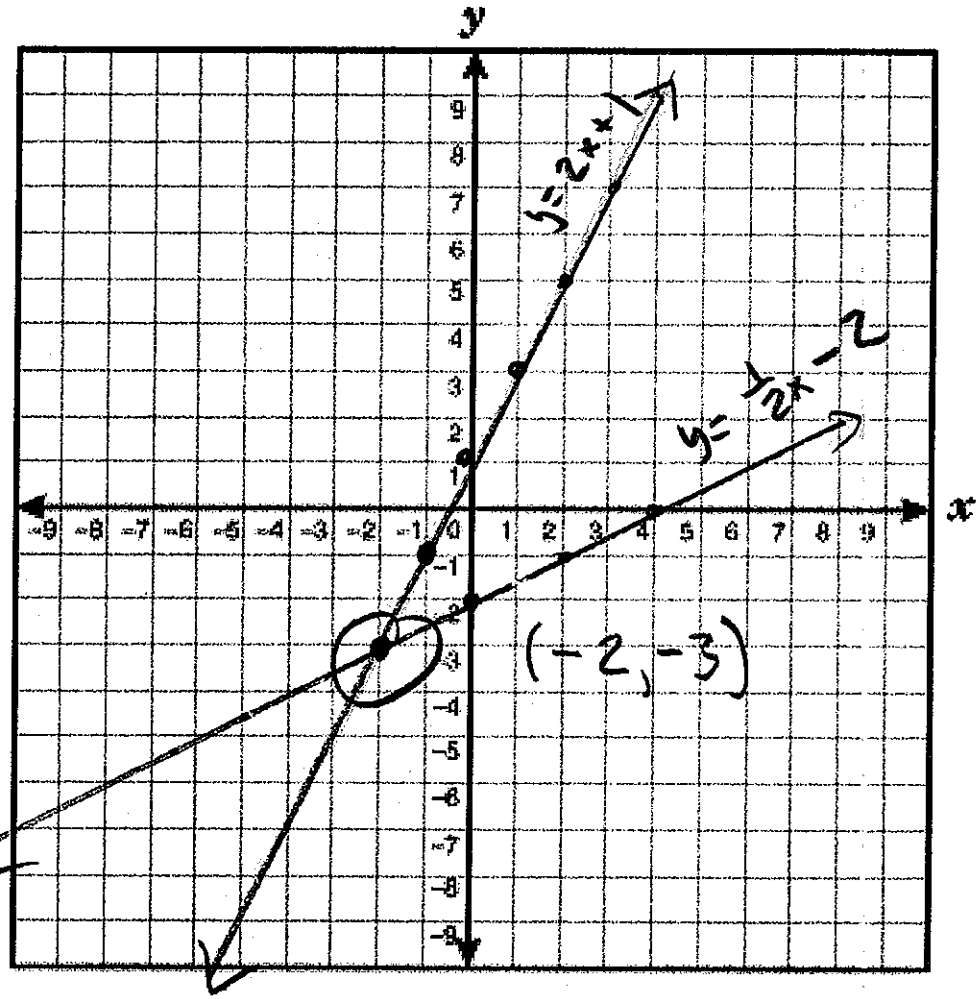
$-12 = b$

6. Find the solution to the system of equations by graphing.

$y - 2x = 1$ → $y = 2x + 1$

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

$(-2, -3)$



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