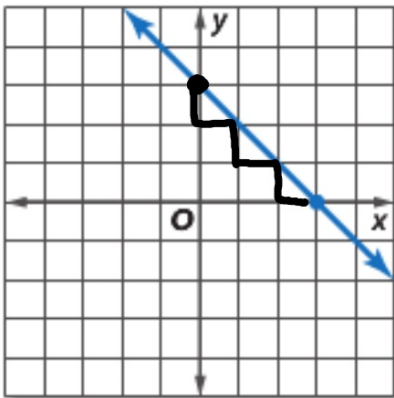Algebra 1   Ch. 3 Review

Quiz 3.5-3.6

Ch. 3 (test is Tues.)
Whiteboards

3.

Proportional? **no**
Write the equation
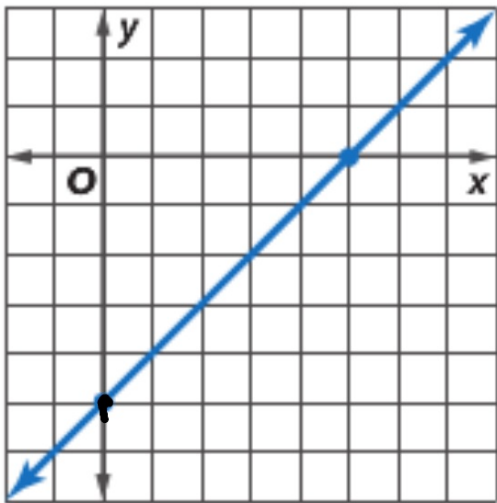Function notation

$$y = mx + B$$
$$y = -1x + 3$$
$$y = -x + 3$$
$$f(x) = -x + 3$$

2.

no

$$y = mx + B$$

$$f(x) = x - 5$$

Find the slope of the line that passes through each pair
of points.

29. $(0, 5), (6, 2)$

$$\frac{-3}{6} = \frac{-1}{2}$$

$2 \cdot 3 = 6$

$\frac{6}{3} = 2$ $\frac{6}{2} = 3$

$0 \cdot 3 = 0$ $\frac{0}{3} = 0$

$\frac{0}{0} = 0$

30. $(-6, 4), (-6, -2)$

$$\frac{6}{0} = \text{undef}$$

$$\frac{0}{6} =$$
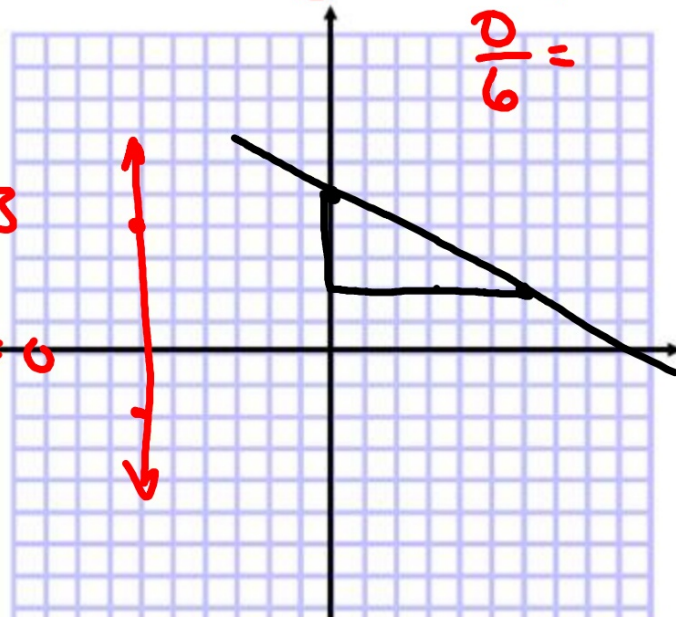
Graph each equation.

13. $y = -x + 2$

$y = -1x + 2$

14. $x + 3y = 4$

$(0, \frac{4}{3})$

$(4, 0)$

$\frac{3y}{3} = \frac{4}{3}$

$x = y$
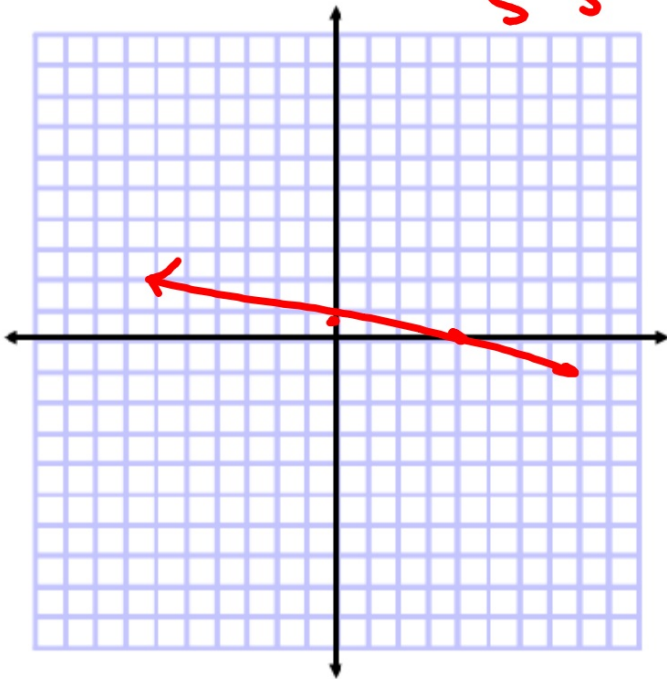
Solve each equation ~~by graphing.~~

22. $0 = 16 - 8x$

23. $0 = 21 + 3x$

$y = -8x + 16$

$\begin{array}{cc} -21 & -21 \\ \hline \end{array}$

$\dfrac{-21}{3} = \dfrac{3x}{3}$

$x =$

Where does it cross the x-axis?
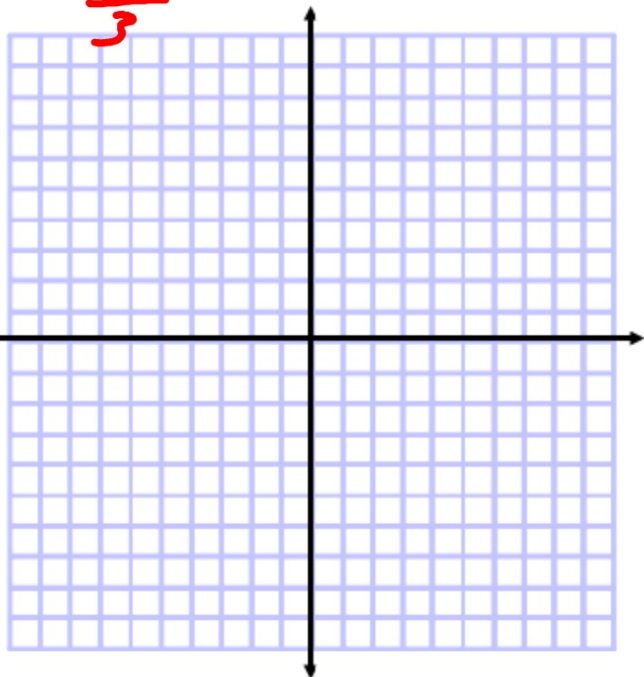
Find the zero (solve)

24. $-4x - 28 = 0$ **25.** $25x - 225 = 0$

26. FUNDRAISING Sean's class is selling boxes of popcorn to raise money for a class trip. Sean's class paid $85 for the popcorn, and they are selling each box for $1. The function $y = x - 85$ represents their profit y for each box of popcorn sold x. Find the zero and describe what it means in this situation.

$$y = K \cdot x$$

Suppose y varies directly as x. Write a direct variation equation that relates x and y. Then solve.

35. If $y = 15$ when $x = 2$, find y when $x = 8$.

$$\frac{15}{2} = \frac{K \cdot 2}{2}$$

$$K = 7.5$$

$$y = 7.5x$$

$$y = 7.5(8)$$

$$y = 60$$

38. JOBS Suppose you earn $127 for working 20 hours.

$y = k \cdot x$

a. Write a direct variation equation relating your earnings to the number of hours worked.

b. How much would you earn for working 35 hours?

$$\frac{127}{20} = \frac{k \cdot 20}{20}$$

$$k = 6.35$$

$$y = 6.35x$$

$$y = 6.35(35)$$

$ 222.25

Example 5

Find the next three terms of the arithmetic sequence
10. 23. 36. 49. … .

$$a_n = a_1 + (n-1)d$$

$$a_n = 10 + (n-1)13$$

Write an equation for the nth term of each arithmetic sequence.

41. $a_1 = 6, d = 5$

42. 28, 25, 22, 19, …