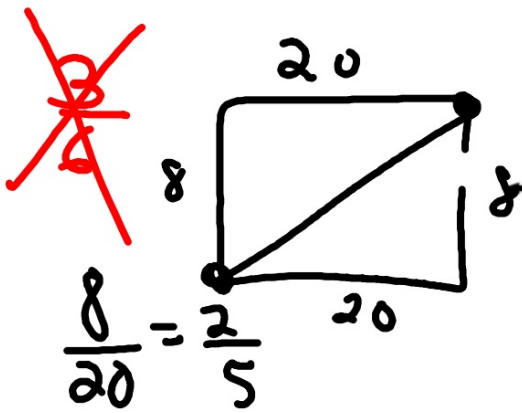
Algebra 1 Review for Midchapter test

MCT 3.1-3.4 is tomorrow

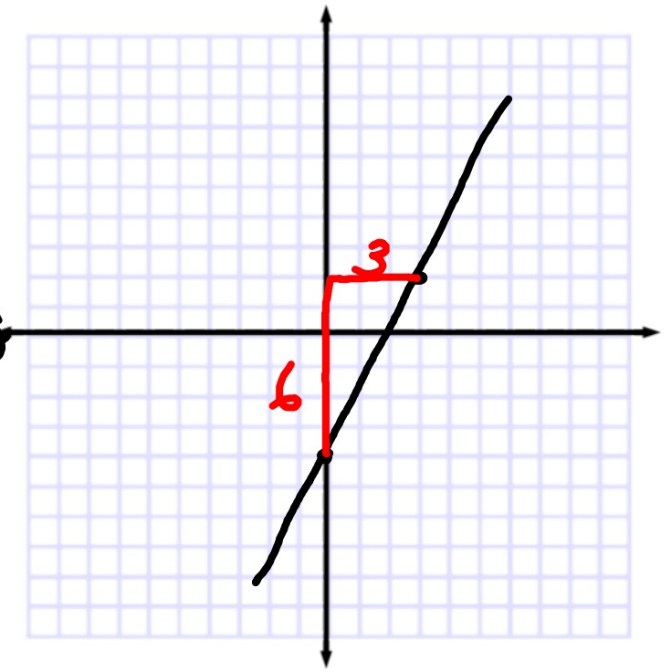
Example 3

Find the slope of the line that passes through (0, −4) and (3, 2).

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



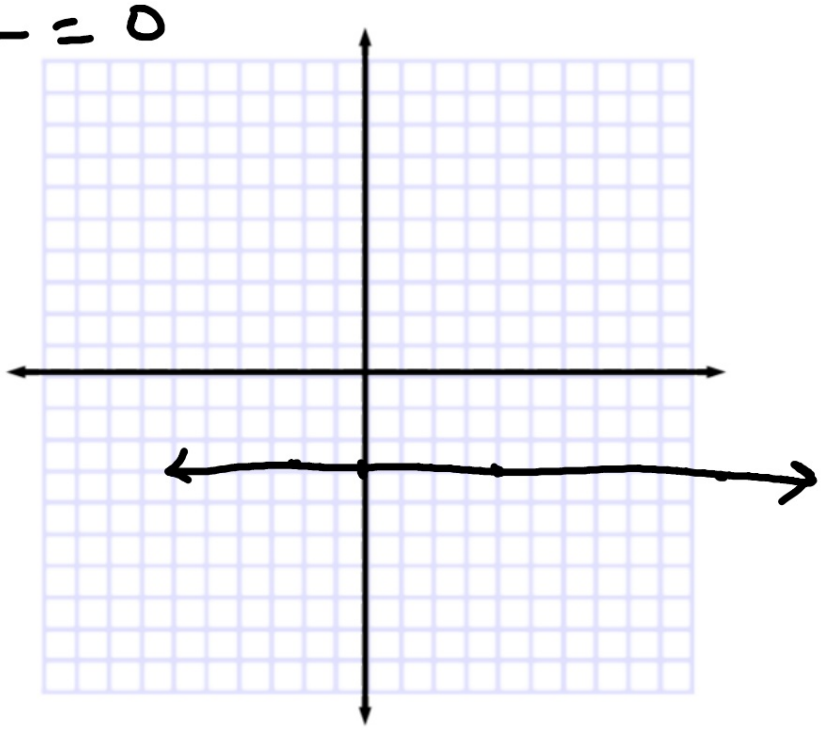
$\frac{8}{20} = \frac{2}{5}$



Find the rate of change

$m = \frac{0}{12} = 0$

x	y
-2	-3
0	-3
4	-3
12	-3



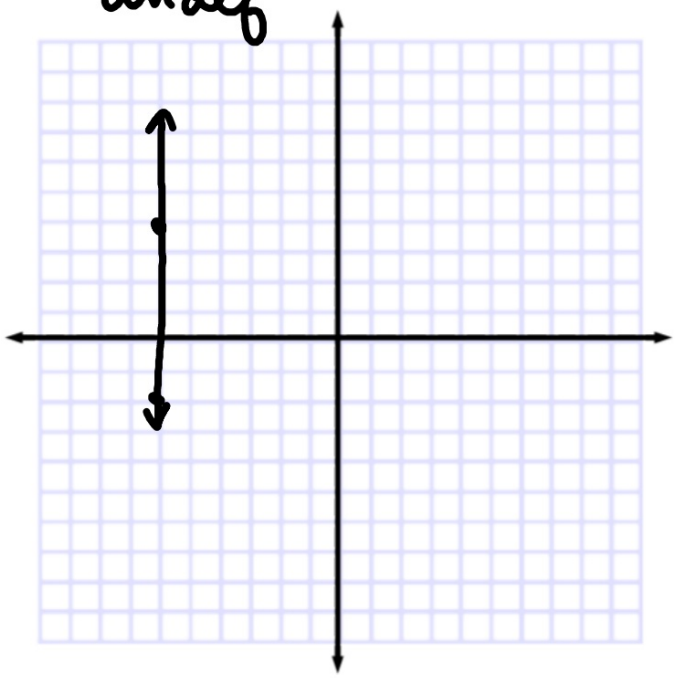
Find the slope of the line that passes through each pair of points.

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

30. (−6, 4), (−6, −2)

$\frac{6}{0}$

undef



31. Photos

(2002, .50) (2009, .15) $\frac{.50-.15}{2002-2009} = \frac{.35}{-7}$

The average cost of online photos decreased from \$.50 per print to \$.15 per print between 2002 and 2009. Find the rate of change in the cost. Explain what it means.

$m = \frac{-.35}{7} = -\$0.05 \frac{\text{per}}{\text{year}}$

Ex. 1 $\frac{-y}{1}=\frac{4}{-1}$ $\frac{3x}{3}=\frac{4}{3}$

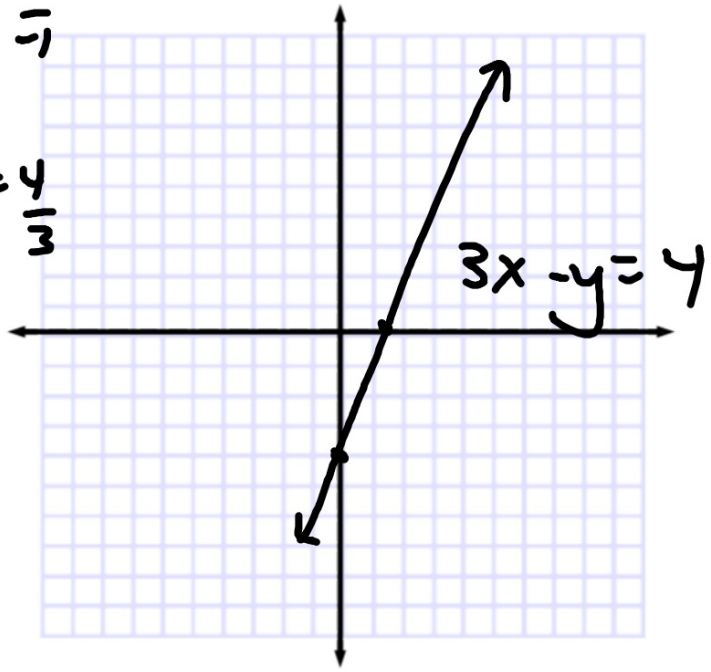
Graph $3x-y=4$ by using the x-and y-intercepts.

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

$(0,-4)$

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

$(1\frac{1}{3},0)$



Graph each equation.

(Use any method)

13. $y = -x + 2$

$\frac{-1}{1}$

14. $x + 5y = 4$

$-x \quad -x$

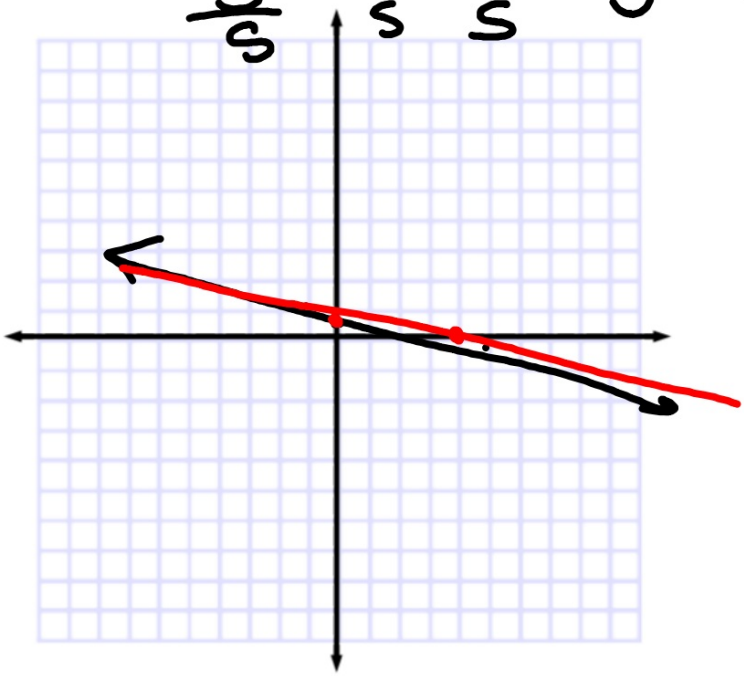
$\frac{5y}{5} = \frac{-x}{5} + \frac{4}{5}$

$y = \frac{-1}{5}x + \frac{4}{5}$

$(0, \frac{4}{5})$

$(4, 0)$

$\frac{5y}{5} = \frac{4}{5}$



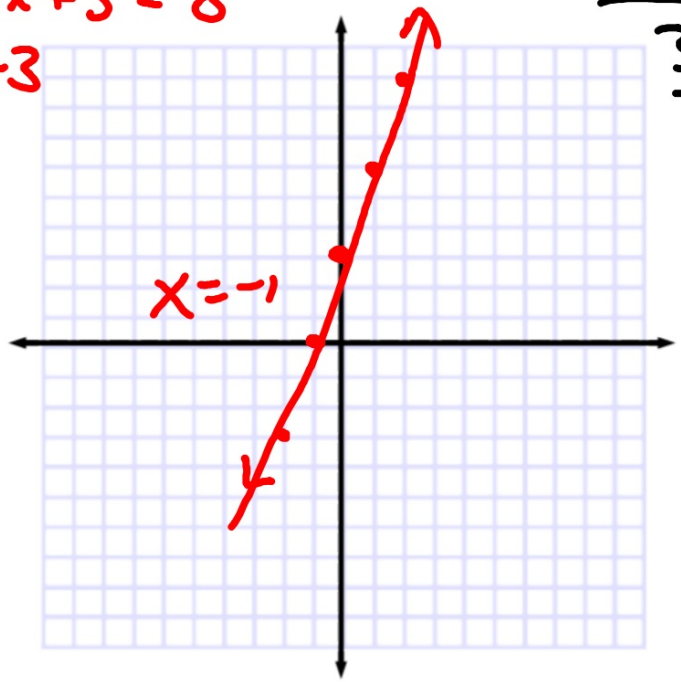
~~Solve by graphing~~:

$3x + 1 = -2$

$+2 \quad +2$

$3x + 3 = 0$

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



$3x + 1 = -2$

$-1 \quad -1$

$\frac{3x}{3} = \frac{-3}{3}$

$x = -1$

$0 = 2 \cdot -4 + 8$

$0 = -8 + 8$

18. $0 = 2x + 8$

$-8 \quad -8$

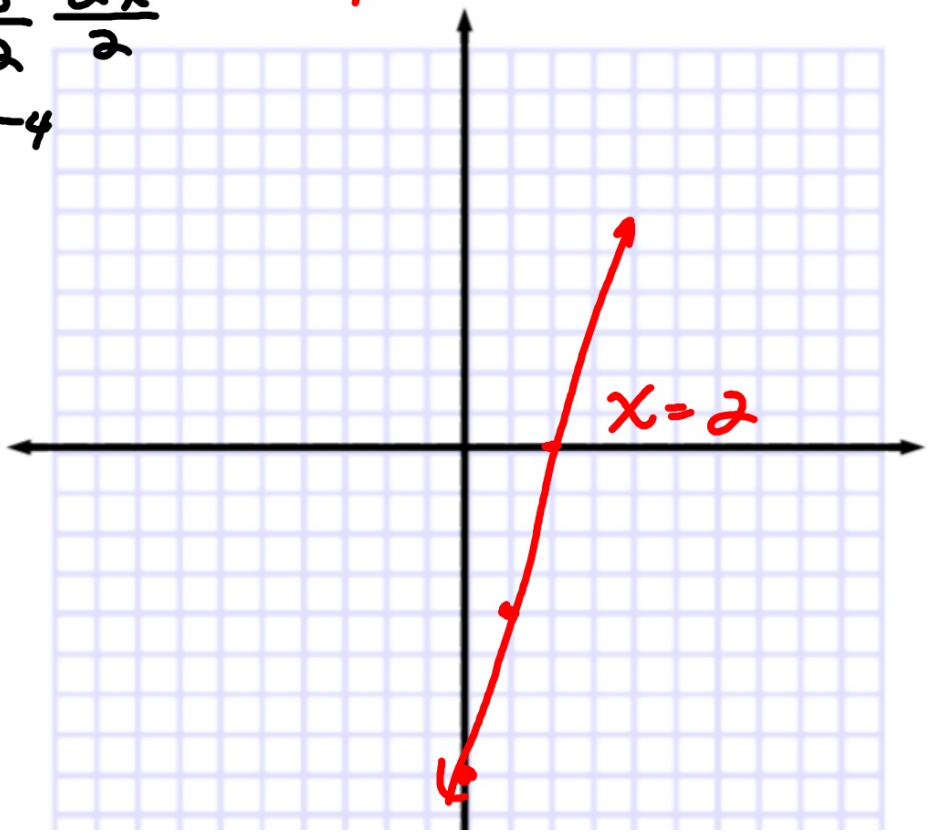
$-8 = 2x$

$\frac{-8}{2} = \frac{2x}{2}$

$x = -4$

19. $0 = 4x - 8$

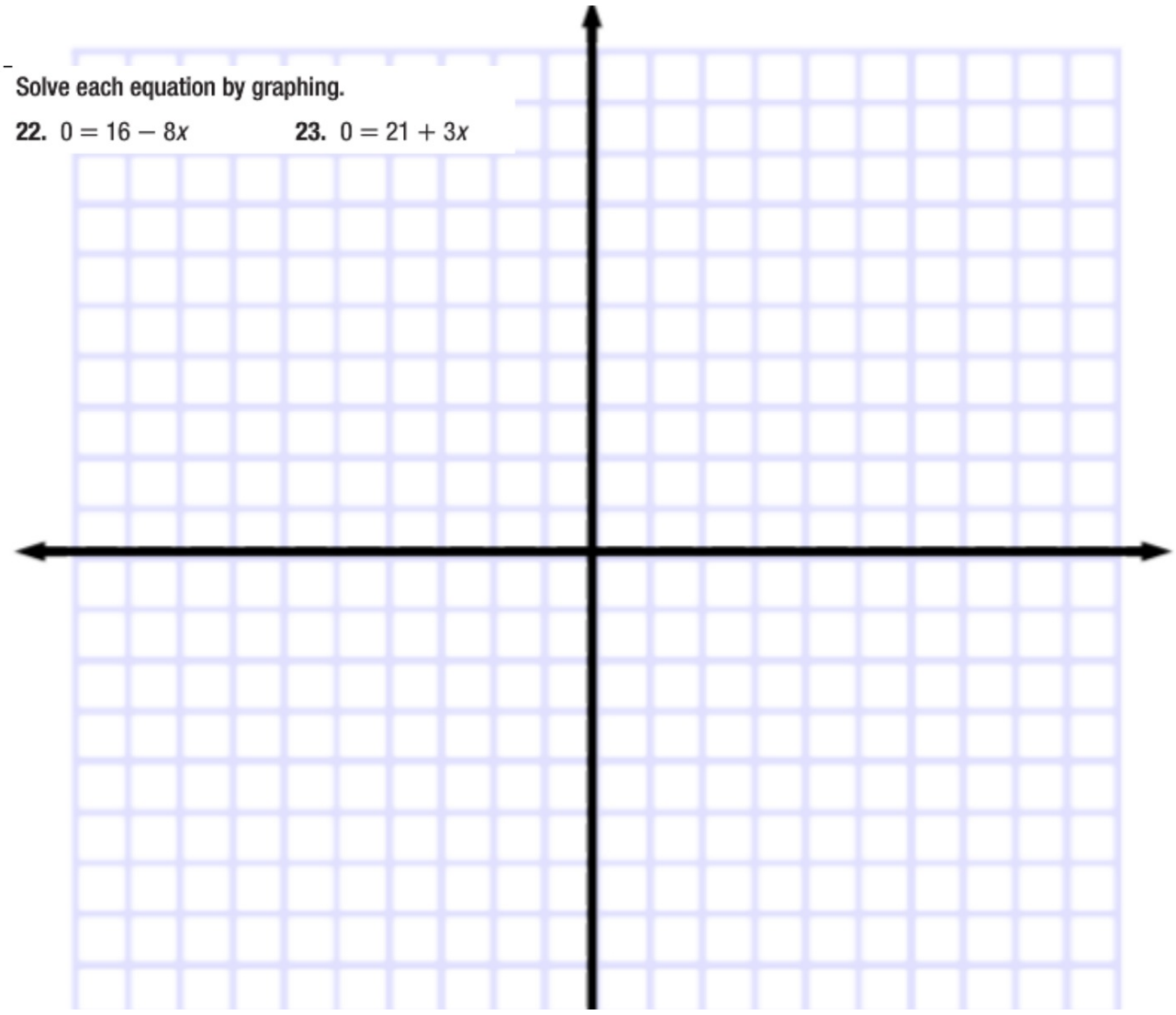
$y = \frac{4}{1}x - 8$



Solve each equation by graphing.

22. $0 = 16 - 8x$

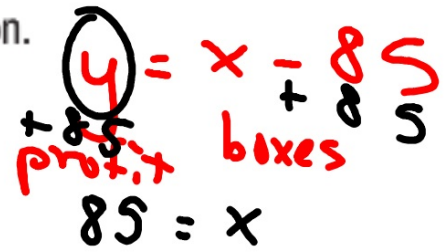
23. $0 = 21 + 3x$



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 varies directly as x.
Y=12 when x=8.
Write an equation relating x and y.
What is the value of y when x=44?

$y = kx$

$\frac{12}{8} = \frac{k \cdot 8}{8}$

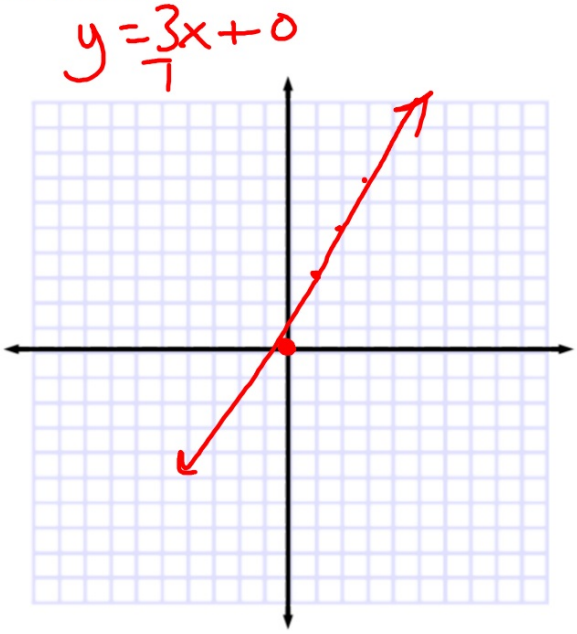
$1.5 = k$

$y = 1.5x$

$y = 1.5(44)$

$y = 66$

Graph y=3x



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