

Algebra 1 Review for Midchapter test

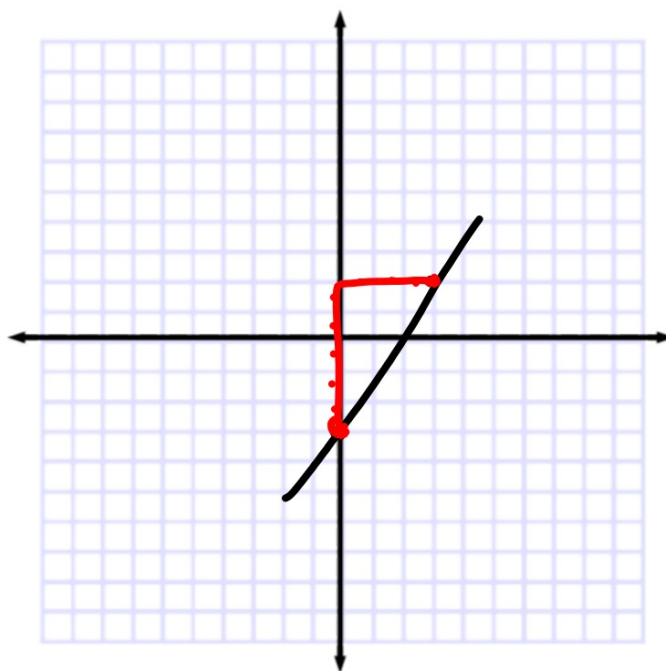
MCT 3.1-3.4 is Mon.

Quiz 3.3-3.4

Example 3

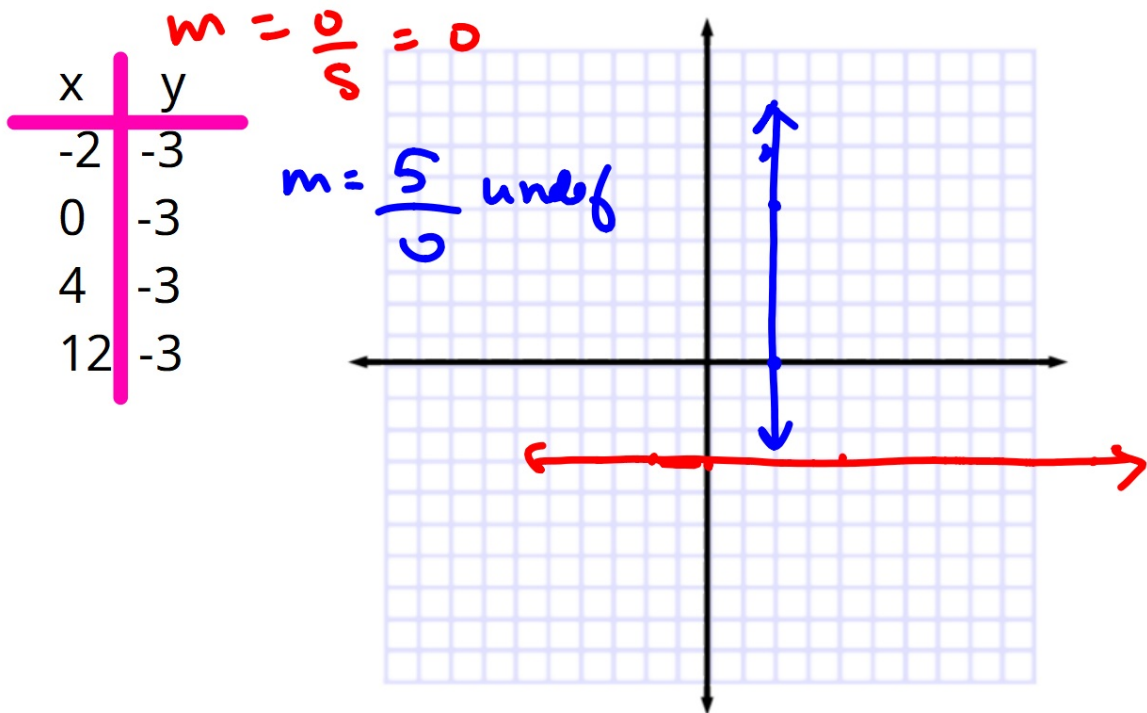
Find the slope of the line that passes through $(0, -4)$ and $(3, 2)$.

$$m = \frac{\text{rise}}{\text{run}} = \frac{+5}{3}$$



$m =$

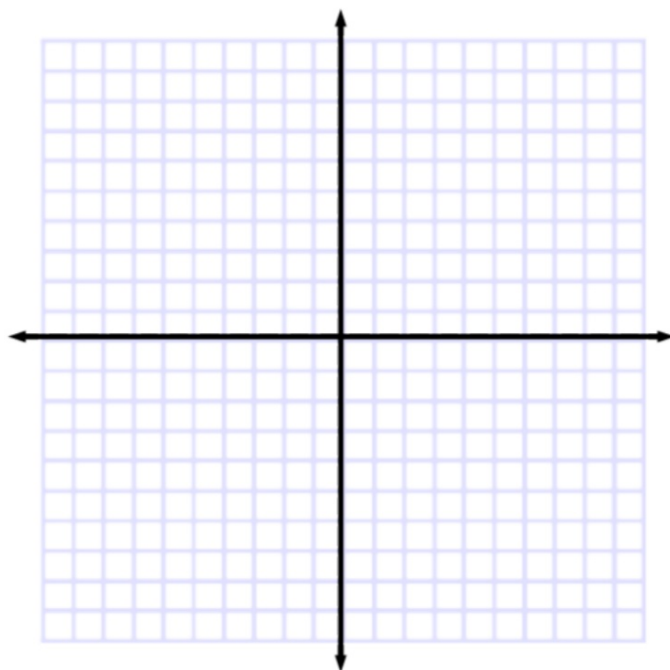
Find the rate of change



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

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

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



31. Photos

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. *per year*

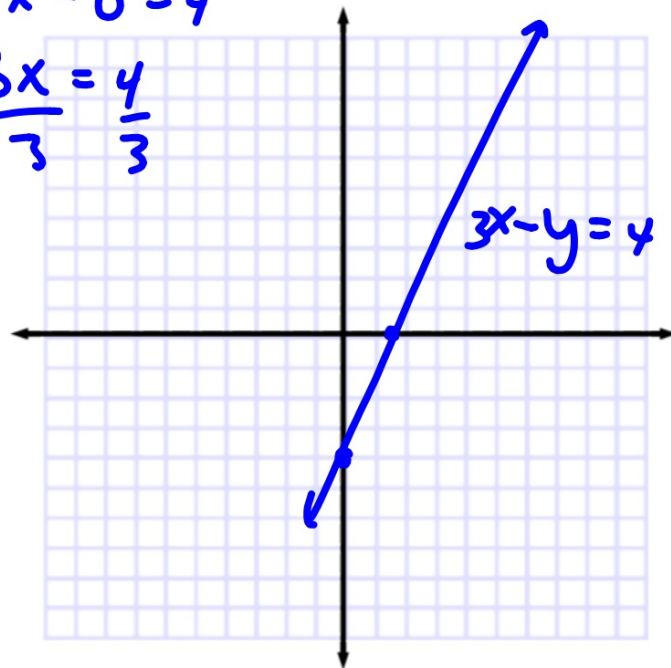
$$\frac{-.35}{7} \quad .50 \quad .15 \quad \frac{-.35}{7} \quad \text{\$.05 per year}$$

Ex. 1

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

y-int
 $(0, -4)$
x-int
 $(\frac{4}{3}, 0)$
 $\frac{1}{3}$

$$3x - 0 = 4$$
$$\frac{3x}{3} = \frac{4}{3}$$



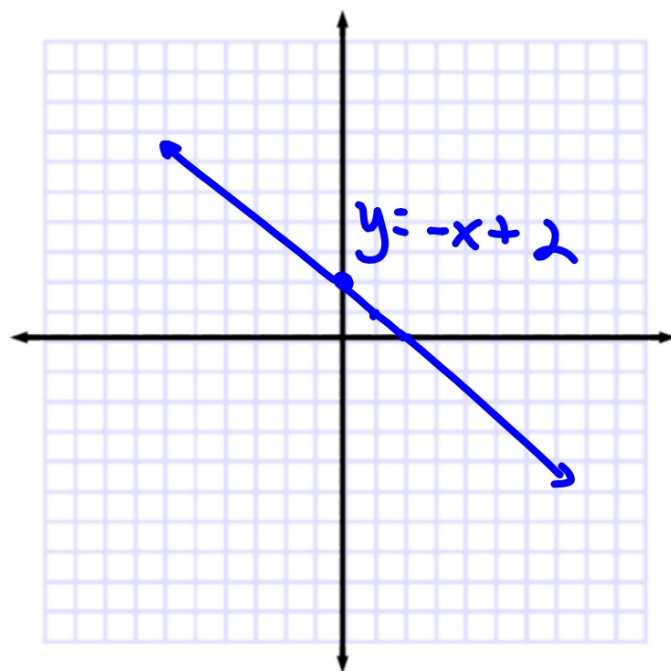
Graph each equation.

(Use any method)

13. $y = -x + 2$

14. $x + 5y = 4$

$$y = -1x + 2$$

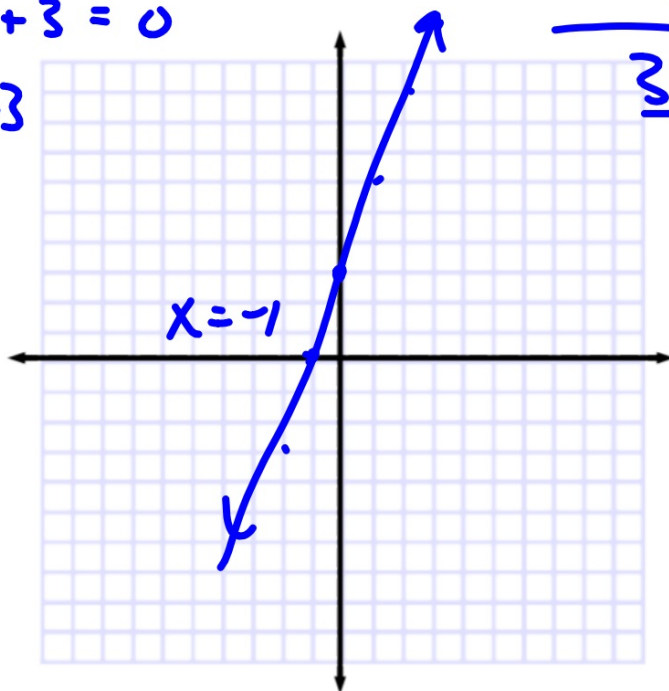


Solve by graphing:

$$3x + 1 = -2$$

$$\begin{array}{r} 3x + 1 = -2 \\ +2 \quad +2 \\ \hline 3x + 3 = 0 \end{array}$$

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



$$\begin{array}{r} 3x + 1 = -2 \\ -1 \quad -1 \\ \hline 3x = -3 \\ \frac{3x}{3} = \frac{-3}{3} \\ x = -1 \end{array}$$

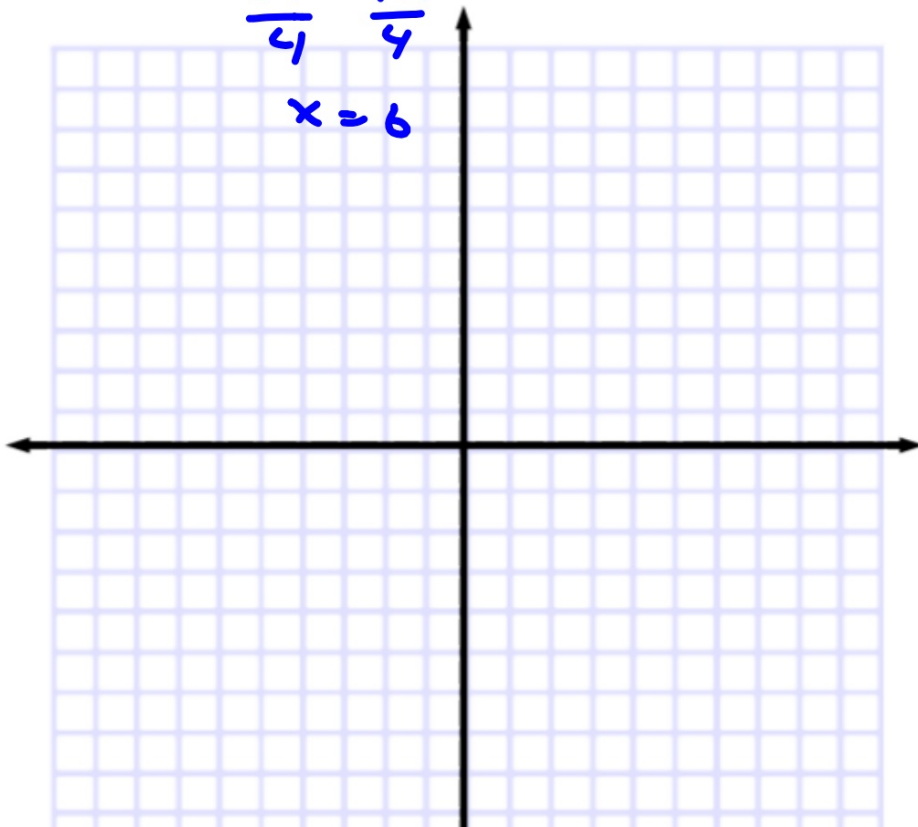
18. $0 = 2x + 8$

19. $0 = 4x - 24$

$+2y \quad +2y$

$\frac{24}{4} = \frac{4x}{4}$

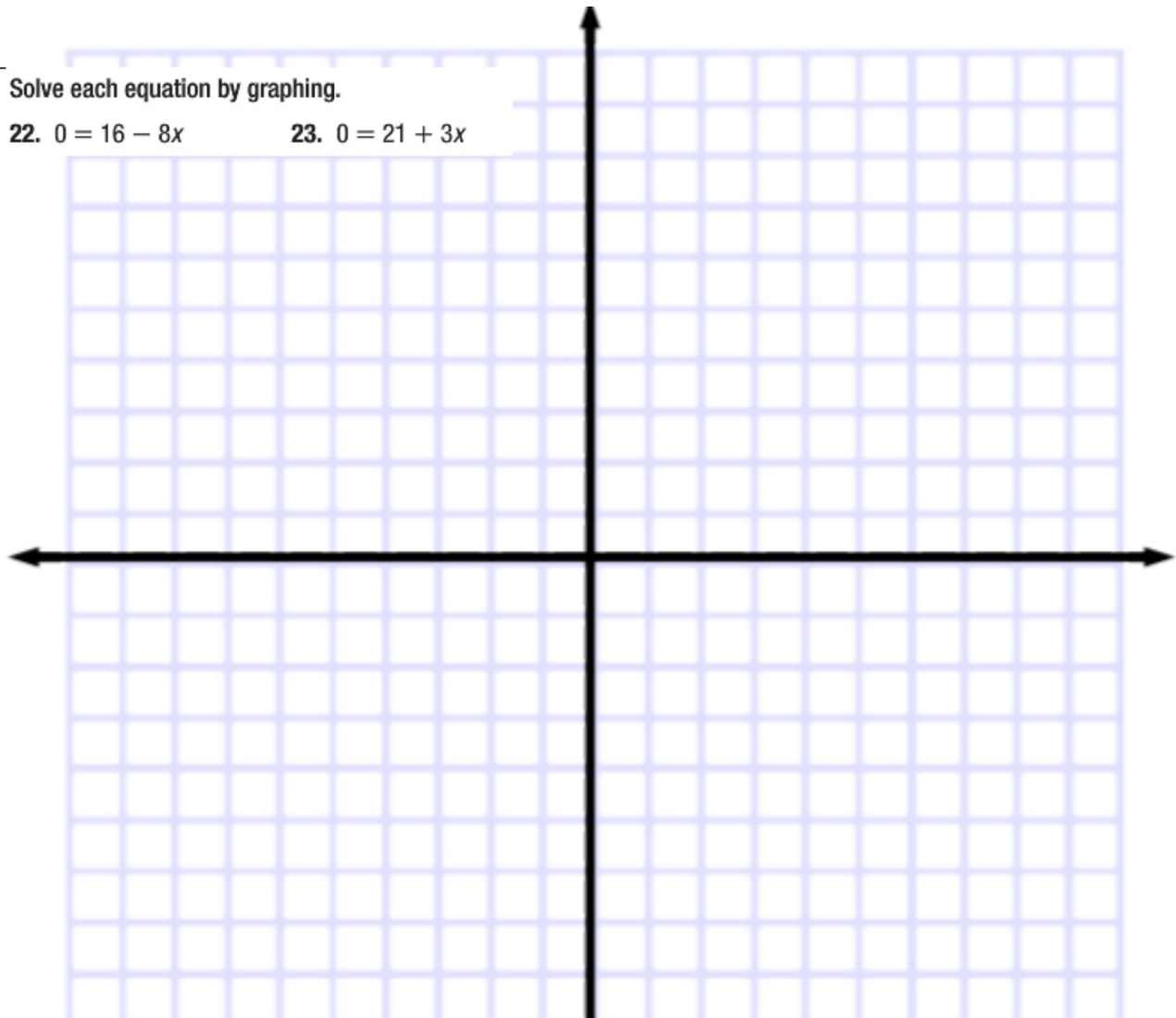
$x = 6$



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?

$$y = k \cdot x$$

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

$$1.5 = k$$

$$y = 1.5(44)$$

$$y = 66$$

Graph $y=3x + 0$

