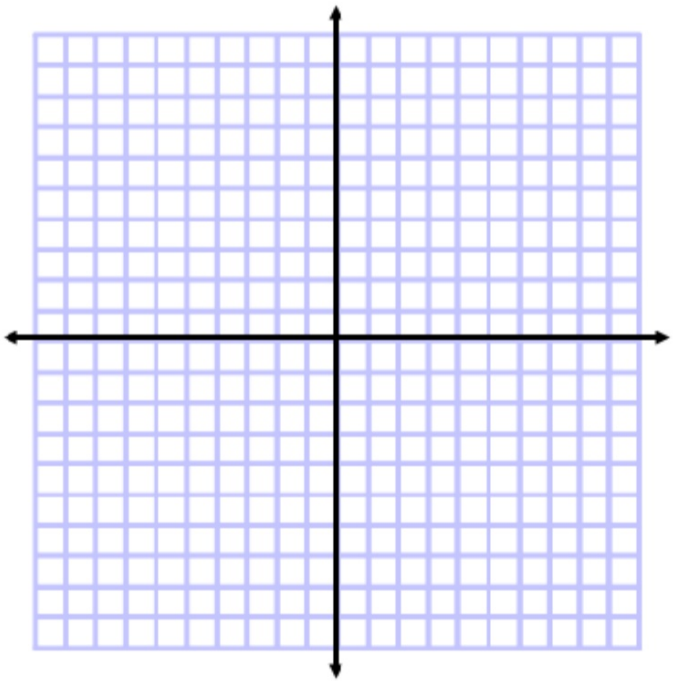
Algebra 1 Ch. 3 Review

Review Ch. 3 (test is Thurs.)
Whiteboards

Graph each equation.

13. $y = -x + 2$

14. $x + 5y = 4$

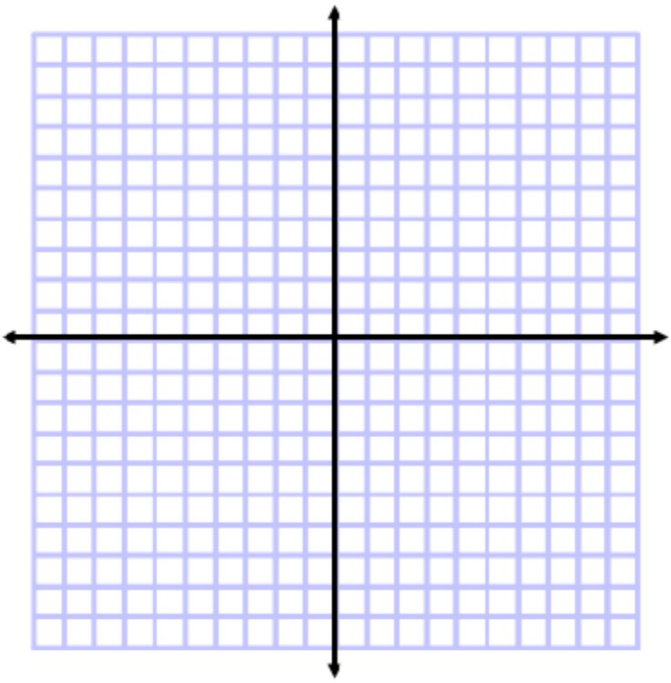


Solve each equation by graphing.

22. $0 = 16 - 8x$

23. $0 = 21 + 3x$

Where does it cross the x-axis?



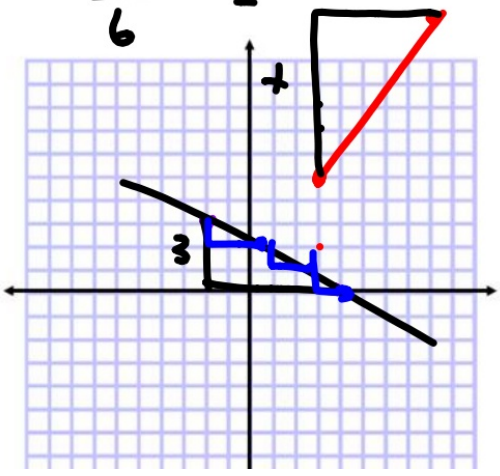
Find the zero (solve)

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.

(3, 5) (8, 12)

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



$\frac{\text{vert}}{\text{horiz.}} : \frac{7}{5}$

$\frac{\text{rise}}{\text{run}}$ (y's) $\frac{}{\text{right}}$

31. **PHOTOS** The average cost of online photos decreased from \$0.50 per print to \$0.15 per print between 2002 and 2009. Find the average rate of change in the cost. Explain what it means.

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 $x = 8$.

$y = kx$ $(2, 15)$

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

$7.5 = k$

$y = 7.5x$

$y = 7.5 \cdot 8$

$y = 60$

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

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?

$y = k \cdot h$

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

$K = 6.35$

$y = 6.35h$

$y = 6.35(35)$

$= 222.25$

Example 5

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

Write an equation for the *n*th term of each arithmetic sequence.

41. $a_1 = 6, d = 5$

42. 28, 25, 22, 19, …