

Algebra 1 Ch. 3 Review

Review Ch. 3 (test is Wed.)
Quiz today

Whiteboards

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Graph each equation.

13. $y = -x + 2$

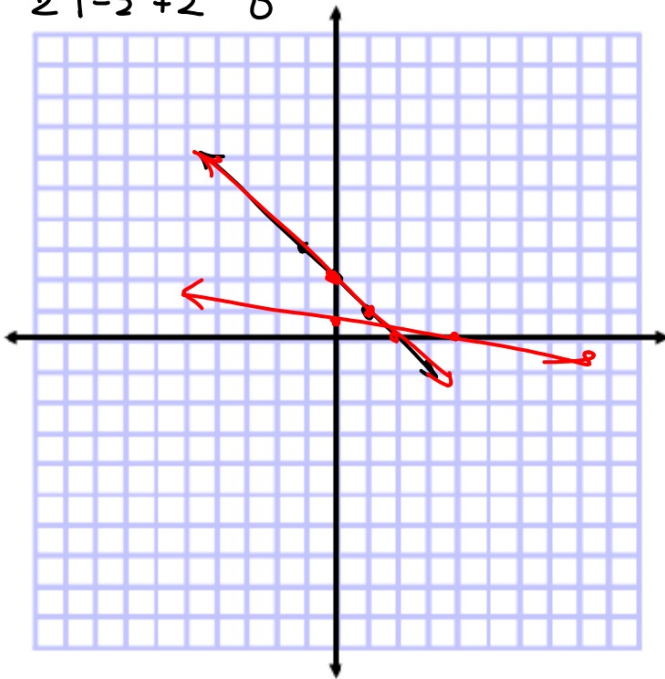
x	-x + 2	
1	-1 + 2	1
-1	-(-1) + 2	3
0	-0 + 2	2
2	-2 + 2	0

14. $x + 0 = 4$

$x + 0 = 4$

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

$(4, 0)$



Solve each equation by graphing.

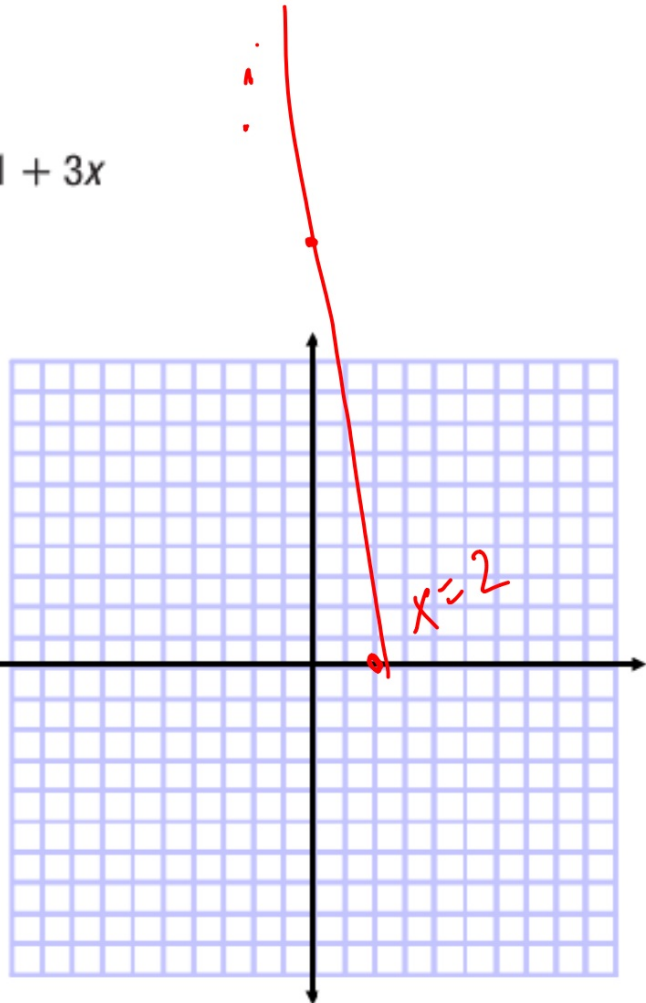
22. $0 = 16 - 8x$

23. $0 = 21 + 3x$

$y = 16 - 8x$

x	$16 - 8 \cdot x$	
2	$16 - 16$	0
0	$16 - 8 \cdot 0$	16
-1	$16 - 8 \cdot (-1)$ $16 + 8$	24

Where does it cross the x-axis?



24. $-4x - 28 = 0$ 25. $25x - 225 = 0$ Find the zero (solve)

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.

- 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 $x = 8$.

- 38. JOBS** Suppose you earn \$127 for working 20 hours.
- Write a direct variation equation relating your earnings to the number of hours worked.
 - How much would you earn for working 35 hours?

Example 5

Find the next three terms of the arithmetic sequence

10. 23. 36. 49. 62, 75 88

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

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

Write an equation for the n th term of each arithmetic sequence. $6, 11, 16, 21, 26, \dots$

41. $a_1 = 6, d = 5$

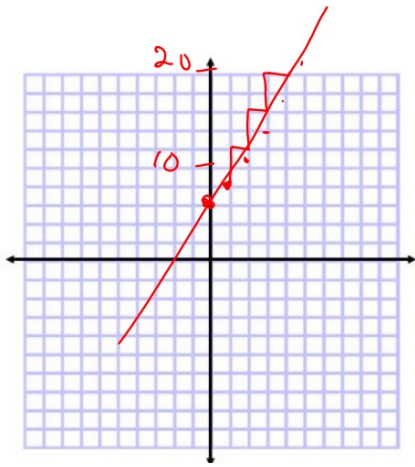
$$a_n = 6 + (n-1) \cdot 5$$

$$y = 6 + 5n - 5$$

$$y = 5n + 1$$

42. 28, 25, 22, 19, ...

	1	2	3	4	5
	8	11	14	17	20



$$y = 2x + 6$$