

Review for Ch.3 Test

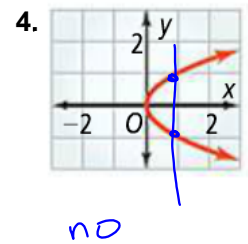
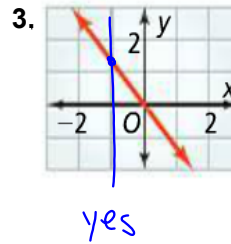
Identify the domain and range of the relation.
Tell whether it is a function.

1. $\{(6, -7), (5, -8), (1, 4), (7, 5)\}$
 $D = \{1, 5, 6, 7\}$
 $R = \{-8, -7, 4, 5\}$ *yes*

2. $\{(4, 2), (1, 1), (0, 0), (1, -1), (4, -2)\}$
 $D = \{0, 1, 4\}$
 $R = \{-2, -1, 0, 1, 2\}$ *no*

Feb 19-4:32 PM

Use the vertical line test to determine whether the relation is a function.



Feb 19-4:22 PM

5. Find the range of each function for the domain $\{-4, -2, 0, 1.5, 4\}$.

$f(x) = -2x - 3$

$f(-4) = -2(-4) - 3 = 5$
 $f(-2) = -2(-2) - 3 = 1$
 $f(0) = -2(0) - 3 = -3$
 $f(1.5) = -2(1.5) - 3 = -6$
 $f(4) = -2(4) - 3 = -11$

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6.

Baking A bottle holds 48 tsp of vanilla. The amount A of vanilla remaining in the bottle decreases by 2 tsp per batch b of cookies. Write a function rule to represent this situation. How much vanilla remains after 12 batches of cookies?



① $A = 48 - 2b$
 ② $A = 48 - 2(12)$
 $A = 24 \text{ tsp}$

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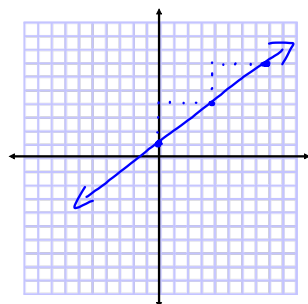
Graphing Lines

Slope-intercept form: $y = mx + b$

Graphing: When you graph, remember first you plot the b and then rise/run... but remember if it is negative you fall. And you ALWAYS RUN RIGHT!

7. $y = \frac{3}{4}x + 1$

$b = (0, 1)$
 $m = \frac{3}{4}$



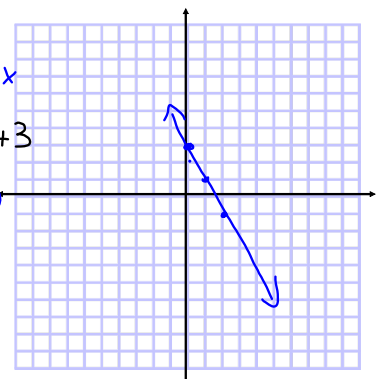
Oct 13-8:08 AM

8.

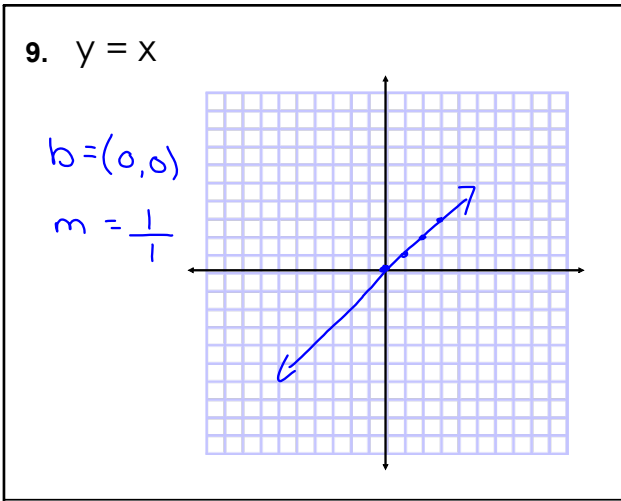
$2x + y = 3$
 $-2x$ $-2x$

$y = -2x + 3$

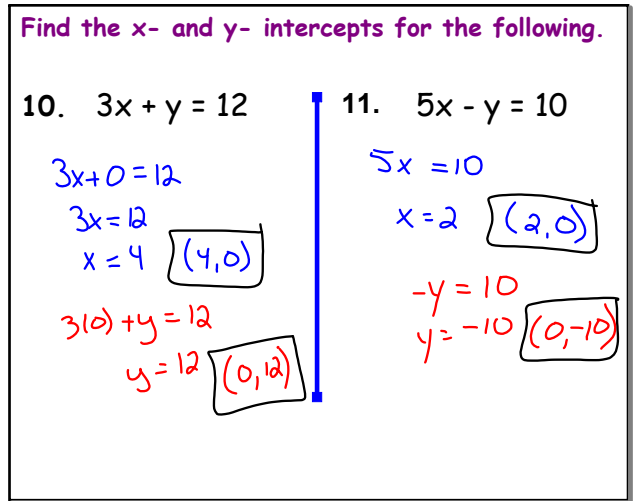
$b = (0, 3)$
 $m = \frac{-2}{1}$



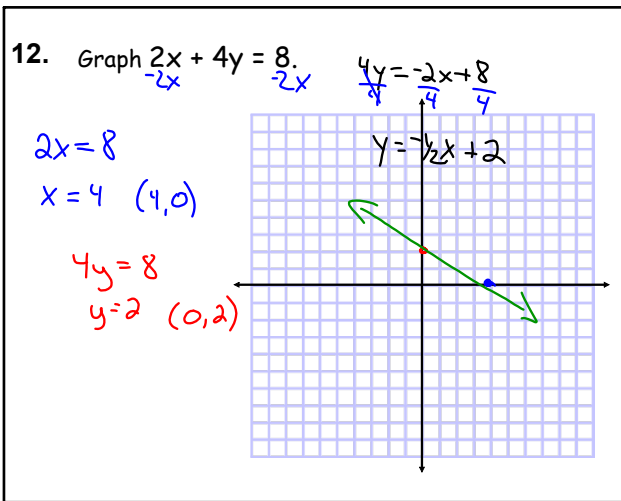
Oct 13-8:08 AM



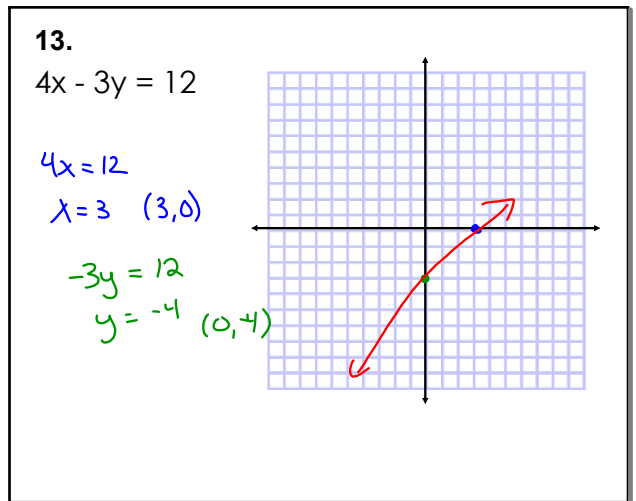
Oct 13-8:08 AM



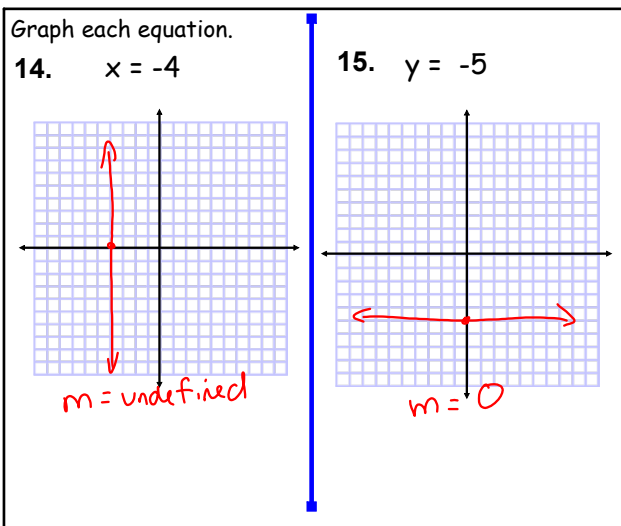
Mar 24-7:38 AM



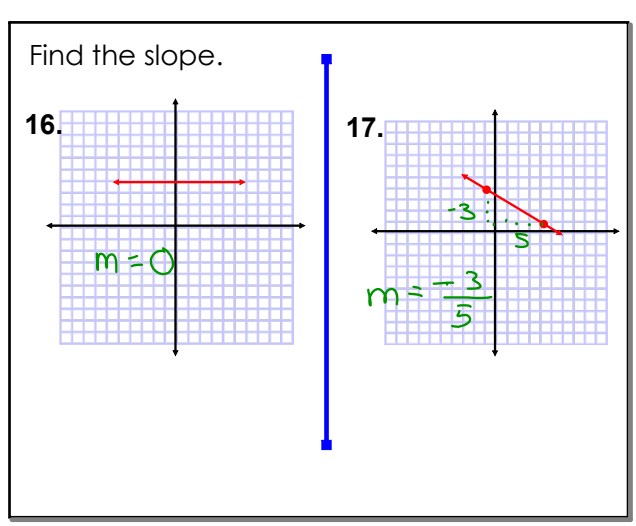
Nov 17-7:14 AM



Oct 13-8:08 AM



Nov 17-7:14 AM



Oct 13-1:05 PM

Find the slope of the line passing through the points.

18. (2, 4), (-2, 6)

$$m = \frac{6-4}{-2-2} = \frac{2}{-4} = -\frac{1}{2}$$

19. (4, 7), (4, -1)

$$m = \frac{-1-7}{4-4} = \frac{-8}{0}$$

undefined



Oct 6-7:24 AM

20. (A1.FIF.6) Find the rate of change given the following table.

X	-2	-1	0	1	2
Y	21	16	11	6	1

$\begin{matrix} +1 & +1 & +1 & +1 \\ -5 & -5 & -5 & -5 \end{matrix}$

$$\frac{-5}{1} = -5$$

21. Write the function that defines this table.

$$y = -5x + 11$$

Oct 16-1:14 PM

22. Write the function that defines this table.

0	1	2	3	4
4	6	8	10	12

$\begin{matrix} +1 & +1 & +1 & +1 \\ +2 & +2 & +2 & +2 \end{matrix}$

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

$$y = 2x + 4$$

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Find the slope and y-intercept.

23. $y = 3x - 2$

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

$$b = (0, -2)$$

24. $y = 10 - 5x$

$$m = \frac{-5}{1}$$

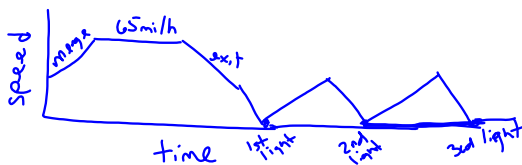
$$b = (0, 10)$$



Oct 13-8:01 AM

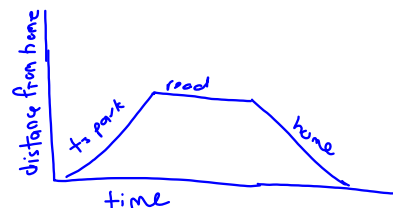
25.

Travel A car's speed increases as it merges onto a highway. The car travels at 65 mi/h on the highway until it slows to exit. The car then stops at three traffic lights before reaching its destination. Draw a sketch of a graph that shows the car's speed over time. Label each section.



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26. You ride your bike to the park, sit to read for a while, and then ride your bike home. Draw a sketch of a graph that shows your possible distance traveled from home over time.



Feb 19-4:39 PM

27. Write a direct variation equation that relates x and y when $y = 10$ and $x = 4$.

$$y = kx$$

$$\frac{10}{4} = \frac{k \cdot 4}{4}$$

$$\frac{5}{2} = k$$

$$y = \frac{5}{2}x$$

28. Find the value of y when $x = 12$.

$$y = \frac{5}{2} \cdot 12$$

$$y = 30$$

Oct 16-1:41 PM

Classwork: p.215 #7 - 20 all, 22

Graph #16 - 18 with notes.

Homework: Study for test!

Feb 3-12:11 PM