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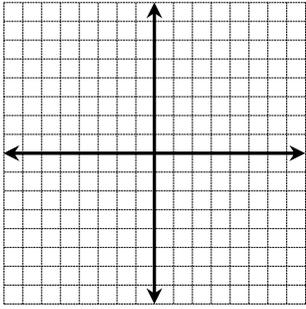
Week 36 Homework Packet – 7th Grade Math Honors

ASSIGNMENT DUE TUESDAY, MAY 9, 2017

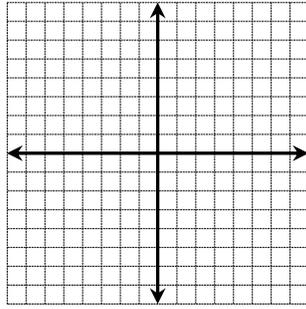
Unit 4, Chapter 9 - Graphing Linear Equations

Graph the following linear functions by finding the y-intercept and using the slope to plot the remaining points.

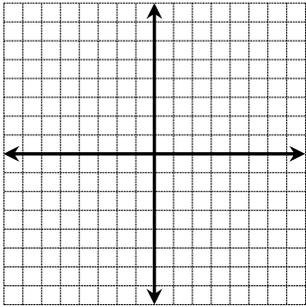
1) $y = 3x + 1$



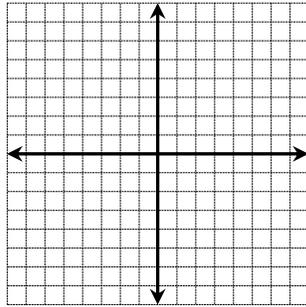
2) $y = -2x + 3$



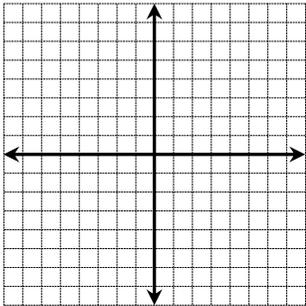
3) $y = \frac{3}{4}x - 5$



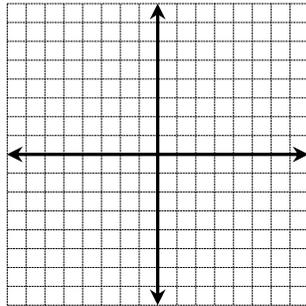
4) $y = 4x + 5$



5) $y = -\frac{1}{2}x$



6) $y = -x - 4$



7) What is the slope of the line that is graphed from the equation $y = \frac{2}{3}x + 4$?

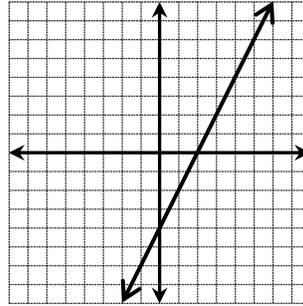
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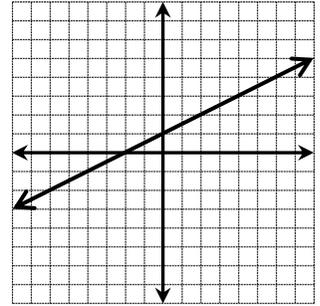
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For each graph shown below, write the equation of the graph in slope-intercept form.

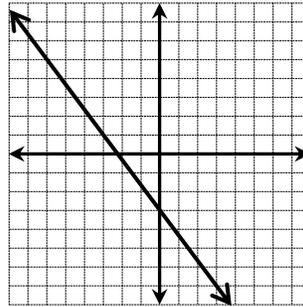
8)



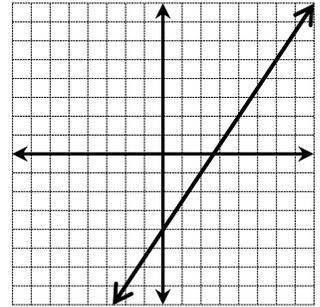
9)



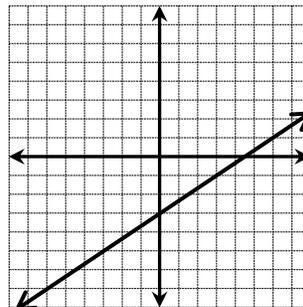
10)



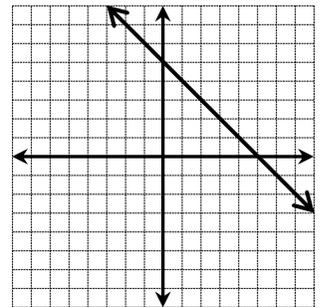
11)



12)



13)



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ASSIGNMENT DUE WED/THU, MAY 10/11, 2017

Unit 4, Chapter 9 - Graphing Linear Equations

For each set of points below, determine whether or not it constitutes a function. If it is not a function, circle all pairs or sets of points that make it not be a function.

1) $\{2, 5\}, \{4, 5\}, \{-4, 5\}, \{1, 5\}, \{7, 5\}$

2) $\{-3, 2\}, \{2, -3\}, \{7, 3\}, \{3, 7\}, \{-2, -7\}, \{-7, -2\}$

3) $\{5, 4\}, \{-2, 9\}, \{-3, 1\}, \{5, 9\}, \{0, 8\}$

4) $\{2, 9\}, \{2, 8\}, \{2, -6\}, \{2, 4\}$

5) $\{3, 1\}, \{-4, 0\}, \{-8, -4\}, \{5, 1\}, \{-4, 4\}, \{6, 3\}$

Evaluate each of the following. Show all work.

6) $f(4)$ if $f(x) = 3x + 5$

7) $f(-1)$ if $f(x) = x^2 + 4$

8) $f(5)$ if $f(x) = \sqrt{20x}$

Use the following for problems 9–11:

A local fast-food restaurant has the following order shortcuts on their menu:

#1: Hamburger

#2: Cheeseburger

#3: Hot Dog

#4: Veggie Burger

9) Could the menu above be considered a function? Explain why or why not.

10) What is the domain of the menu shown above? How do you know?

11) What is the range of the menu shown above? How do you know?

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ASSIGNMENT DUE FRIDAY, MAY 12, 2017

Unit 4, Chapter 9 - Graphing Linear Equations

Use Table 1 to calculate the average rate of change over the specified intervals given in problems 1–4. Show all work.

x	f(x)
-3	6
-2	2
-1	0
0	3
1	4
2	11
3	8

Table 1

1) [-3, 0]

2) [-1, 1]

3) [0, 2]

4) [2, 3]

Use Table 2 to calculate the average rate of change over the specified intervals given in problems 5–8. Show all work.

x	f(x)
-4	12
-2	2
-1	4
2	0
4	24
7	11
9	14

Table 2

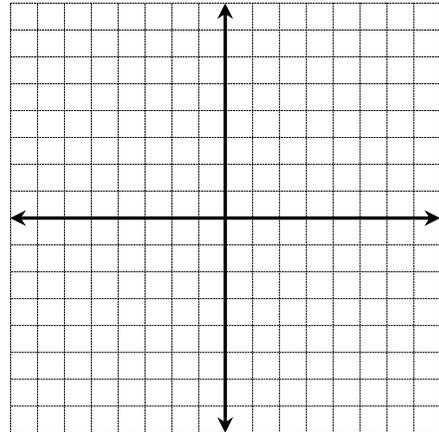
5) [-4, 2]

6) [-2, 7]

7) [7, 9]

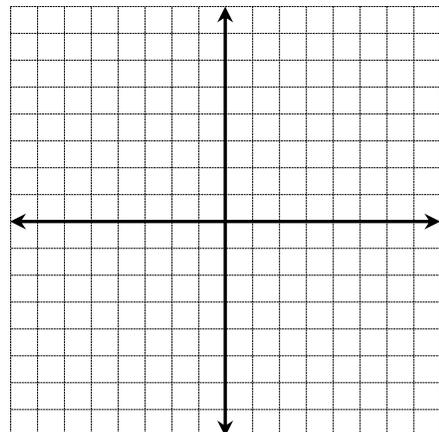
8) [-1, 4]

9) In the grid below, sketch the graph of a function with a slope of $\frac{3}{4}$ and a y-intercept of -6 .



10) What is the x-intercept of the graph that you created for problem #9?

11) In the grid below, sketch the graph of a function with a slope of -2 and a y-intercept of 4 .



12) What is the x-intercept of the graph that you created for problem #11?