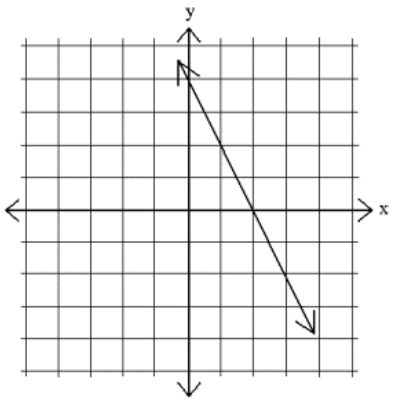
Algebra I **Unit 2 Review** Name_____ Per_____

1. Are the following points solutions of the linear equation $y = -2x + 4$?



a.) (–1,2) _____

b.) (3, –2) _____

2. Find the ***slope*** of the line that passes through the following points. Show your work!

a.) (8, –1) and (–6, 3)

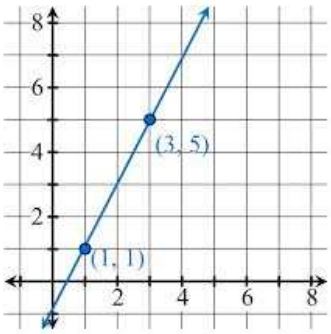
Slope= _____

b.)

x	7	9	11	13	15
y	20	15	10	5	0

slope = _____

c.)



slope = _____

3. The slope of a ***horizontal line*** is _____

4. The slope of a ***vertical line*** is _____

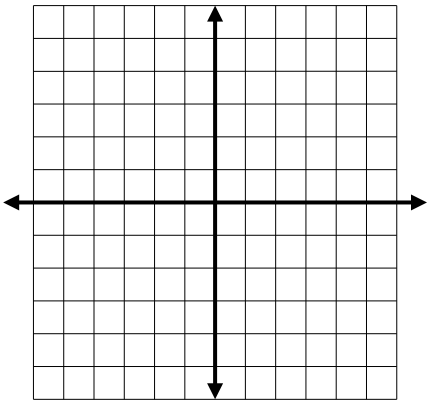
5. Solve the given equation for y. (Rewrite in slope-intercept form)

-6x + 10y = 30

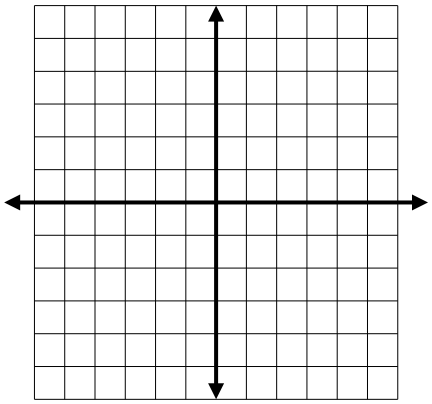
_____

6. Graph the following equations.

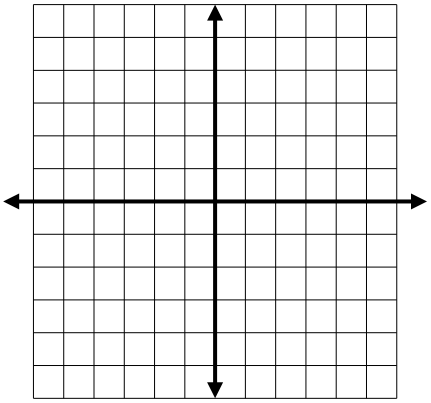
a.) $y = -4x + 2$



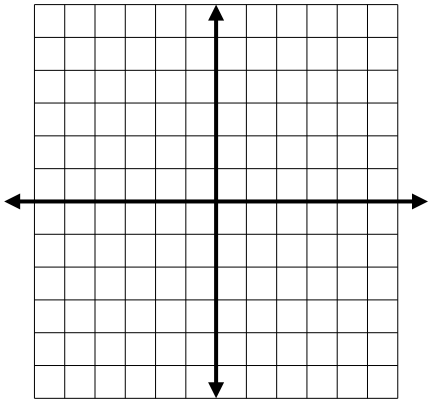
b.) $y = \frac{1}{3}x - 5$



c.) x = 4



d.) $-9x + 6y = 18$

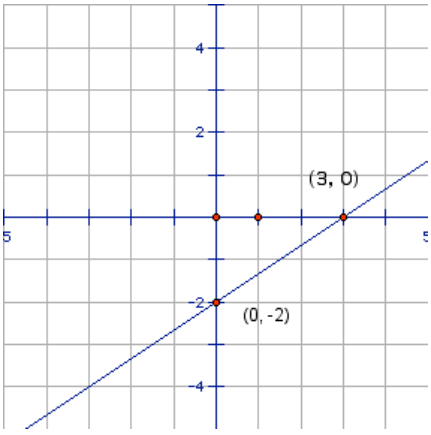


7. Write the equation of the line in *slope-intercept form*.

a.) slope $= -\frac{1}{2}$ and y-intercept = 6

Equation: _____

b.)



Equation: _____

c.) passes through (4, –3) and (-6, 2)

Equation: _____

d.) Write the equation of the line that passes through (6, 3) and ***parallel*** to y = –2x + 1

Equation: _____

8.a) How can we tell if lines are parallel?

8.b) How can we tell if lines are perpendicular?

9. The cost of a taxi ride is $2.00 for each mile plus an initial fee. Your fare for 13 miles is $31.00

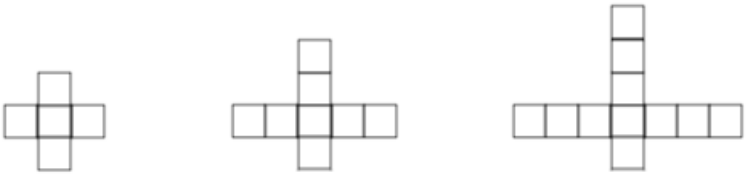
a.) How much is the initial fee (b)? _____

b.) Write an equation (y=mx+b) to model this situation _____

c.) What would your fare be if you rode 17 miles? _____

Use the given tile pattern to answer question numbers 10–13

Figure 0 Figure 1 Figure 2 Figure 3 **Figure 4**



10. Draw Figure 0 and Figure 4.

11. Complete the table representing the tile pattern.

Figure Number					
Tiles					

12. State the Growth Rate: _____ **13.** Write the equation (rule) for this pattern: _____

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14. Give the equation for the line that is perpendicular to y = 3x – 4 and with y-intercept of $-\frac{3}{4}$