Math 8CP Homework   Name _____
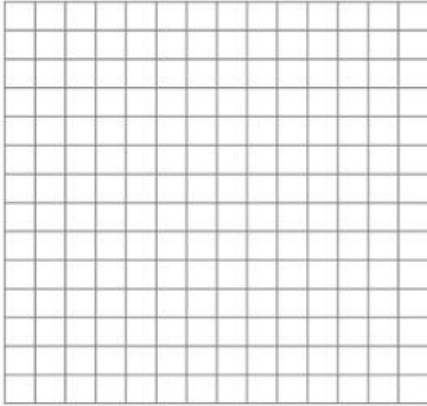December 13 - 17   Per ____ Date _____

Thursday:
1. Sam joins a gym. This gym charges a registration fee of $50 and then charges $30 per month. Graph using appropriate scale:

Rule:_____

Interpret the slope in the context of this problem:

_____

Interpret the y-intercept in the context of this problem:

_____

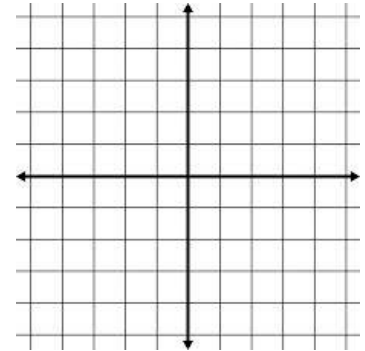**2.** Solve:
a. $-2(x - 5) + 3x = 3x - 4x + 10$ b. $-(x - 1) - 4 = 2x + 3 + 5x$

3. Graph the lines (on the same graph) using the slope and y-intercept.

a. $y = -2x + 3$ m =   b =

b. $y = \dfrac{2}{3}x - 4$ m =   b =

Friday:
1. Find the slope between the 2 points:
a. (0, 0) and (3, –5)   b. (2, 4) and (–3, 1)   c. (5, 2) and (–4, 2)

2. Simplify:
a. $-xy - x^2 + 2x - 4xy + 2x^2 - 5x$ b. $10(3x - y) - 2x - 6y + x$

3. Find the rule of the following pattern and fill in the table: *(Count the segments)*

0	1	2	3	7	43

Rule:_____

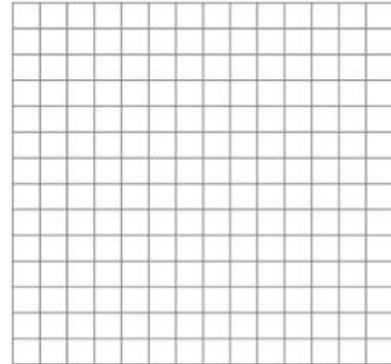Is the point (65, 261) included in your table? Show why or why not mathematically:

1

2

3

4. Ann is finishing knitting a scarf that she forgot about. It is 6 inches long when she finds it. If she adds 3.5 inches every week to her scarf, fill in the table:

a. Fill in the table representing what's happening: b.Graph it using appropriate scale (and label!):

week 0	week 1	week 2	week 3	week 4	week 5	week 6

c. What is the rule for Ann's scarf knitting?

d. Interpret the slope in the context of this problem.
 (What does it mean in words?) _____
e. Interpret the y-intercept in the context of this problem.

_____
f. How long will the scarf be in 9 weeks? _____

g. In how many weeks will it be 55 inches long? _____
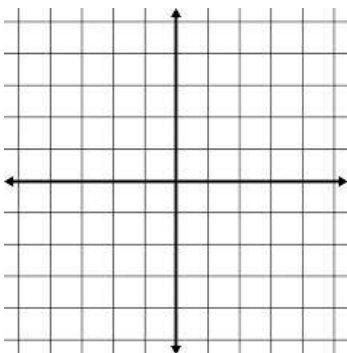
Monday:
1. Solve:
a. $-5x + 16 = -7(x +2)$
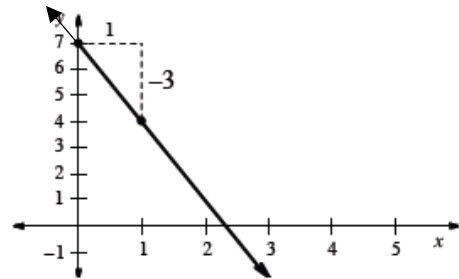
b. $2x + 9 - 4x = -(2x - 3) - 6$

2. Graph $y = 2 \cdot x^2$
Make sure you scale your y-axis to fit all the values:

-3	-2	-1	0	1	2	3

3.

a. Find the equation of the line above.

b. Is the point (-52, 161) on this line? Use math to show why or why not.

4. Find the slope and rule and fill in the table:

0	1	3	5	8	12	41
	9		15			

Slope _____

Rule_____