

Name: _____

Period: _____

Homework #13

Due Friday, February 9th

1. Grace and Allie are going to meet at the fountain near their houses. They both leave their houses at the same time. Allie passes Grace's house on her way to the fountain.

- Allie's walking rate is 2 meters per second
- Grace's walking rate is 1.5 meters per second



a. How many seconds will it take Allie to reach the fountain?

b. Suppose Grace's house is 90m from the fountain. Who will reach the fountain first, Allie or Grace? Explain your reasoning.

2. The following tables represent the costs from two skating companies.

a. For each company, is the relationship between the number of people and cost a linear relationship? Explain.

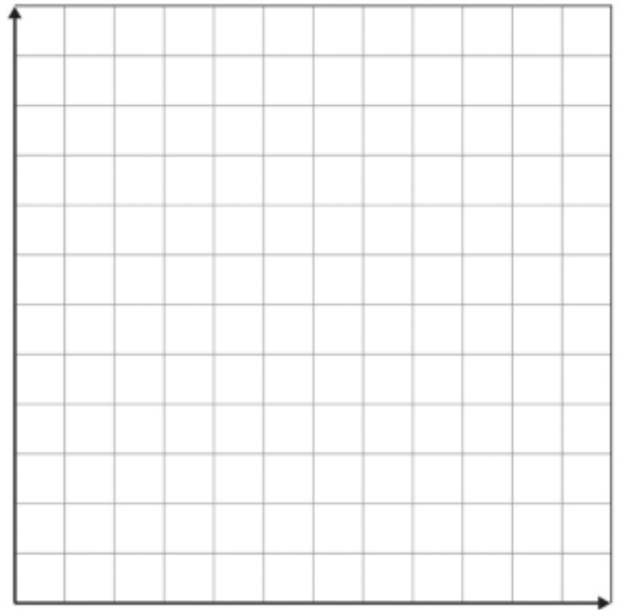
b. For each company, write an equation that represents the relationship between the cost and the number of people. What is the dependent variable? What is the independent variable?

Rollaway Skates		Wheelie's Skates and Stuff	
Number of People	Cost	Number of People	Cost
0	\$0	0	\$100
1	\$5	1	\$103
2	\$10	2	\$106
3	\$15	3	\$109
4	\$20	4	\$112
5	\$25	5	\$115
6	\$30	6	\$118
7	\$35	7	\$121
8	\$40	8	\$124

Name: _____

Period: _____

c. Graph each table on the same graph. What is the y-intercept for each table and what does the value represent?



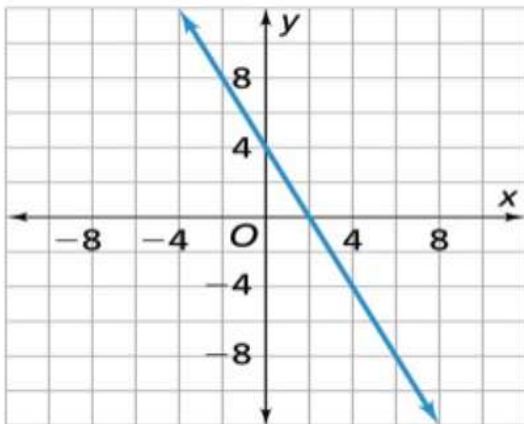
3. Match each equation to a graph.

a. $y = 3x + 5$

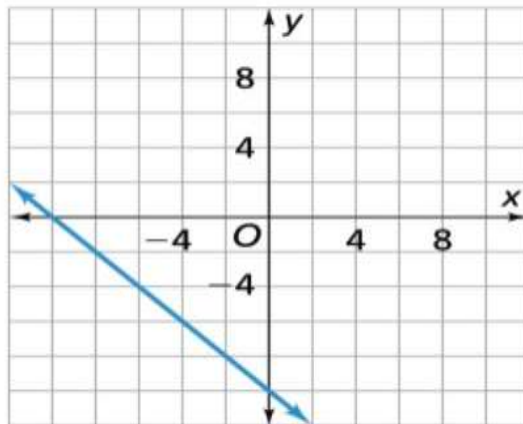
b. $y = x - 7$

c. $y = -x - 10$

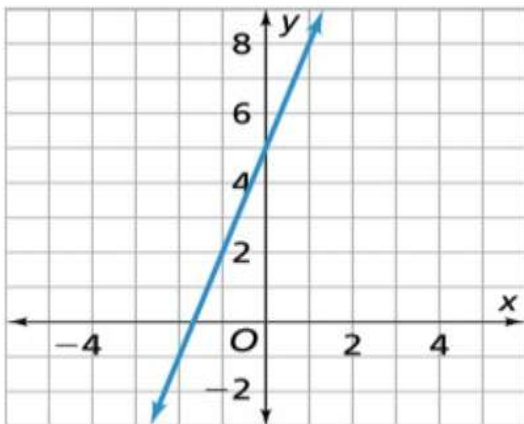
Graph 1



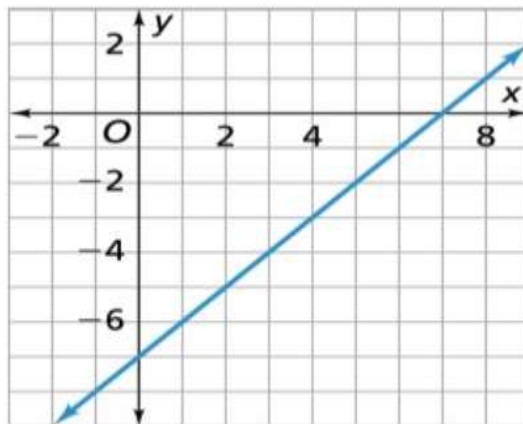
Graph 2



Graph 3



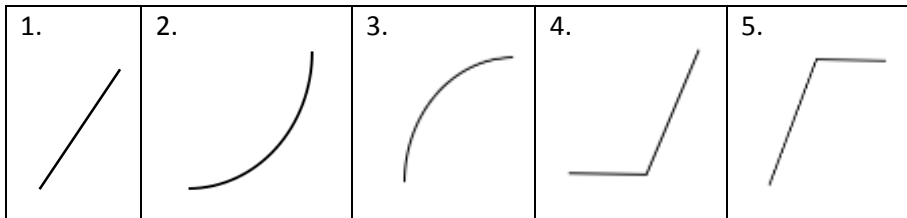
Graph 4



Name: _____

Period: _____

4. Skyler decided to go on a race around the school. As a class, we came up with several different scenarios that could occur during the race and came up with ways to represent them with a line. Match each scenario with the line you think best represents it.

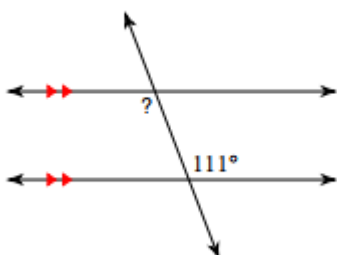


Scenario	Matching Graph	Why did you pick the graph you picked?
A. Skyler runs the entire race at a constant rate		
B. Skyler runs slowly at first and then picks up speed to win the whole thing		
C. Skyler starts off wicked fast but slows down at the end		
D. Skyler fell at the starting line but then got up and ran a constant speed		
E. Skyler ran quickly and got to the finish line early enough to stop and wait		

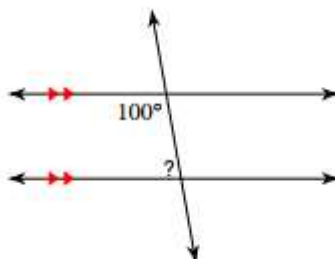
SPIRAL REVIEW! (required)

1. Find the measure of each angle indicated.

a.



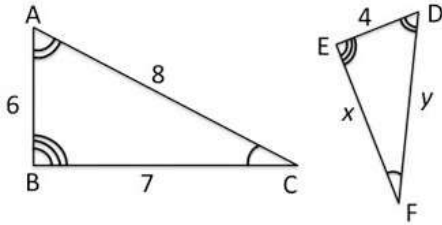
b.



Name: _____

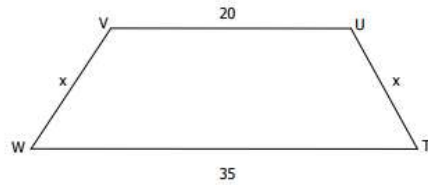
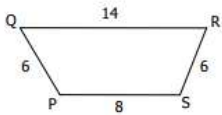
Period: _____

2. The following polygons are similar. Use a proportion to find the missing side lengths.



$x =$ _____ $y =$ _____

3. The following polygons are similar. Use a proportion to find the missing side lengths.



$x =$ _____

4. Carol spends 17 hours in a 2-week period practicing her culinary skills. How many hours does she practice in 5 weeks?

5. In the typing world, 80 words per minute is considered acceptable. How many words per 30 minutes is this?