Name ________________________________ Date ___________ Class ___________

Additional Practice

For Exercises 1–3, refer to this table.

Cycling time (hours)	Distance (miles)		
	Francine	Geraldo	Jennifer
0	0	0	0
1	4.5	6	7.5
2	9	12	15
3	13.5	18	22.5
4	18	24	30

1. a. How fast did each person travel for the first four hours? Explain.

b. Assume that each person continued at this rate. Find the distance each person traveled in 6 hours.

2. a. Graph the time and distance for all three people on the same coordinate axes.

b. Use the graphs to find the distance each person traveled in 2.5 hours.

c. Use the graphs to find the time it took each person to travel 70 miles.

d. How does the rate at which each person rides affect the graphs?

3. a. For each rider, write an equation you can use to calculate the distance traveled after a given number of hours.

b. Describe how you could use your equations to calculate the distance each person traveled in 2.5 hours.

c. How does each person's biking rate show up in the equation?

Additional Practice *(continued)*

4. Stilton was also on the bike trip. The distance he traveled after t hours is represented by $d = 7.25t$.

a. At what rate of speed is Stilton traveling?

b. If you were to put the graph of Stilton's distance and time on the same set of axes as the graphs for Francine, Geraldo, and Jennifer of the previous page, how would it compare to the other three graphs?

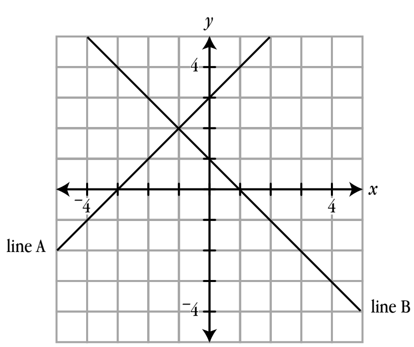
5. Each set of (x, y) coordinates below is generated by a linear rule. For each set of coordinates, write an equation to describe the rule.

a. $(-1, -7), (0, -3), (1, 1), (2, 5), (4, 13), (5, 17)$

b. $(-2, 19), (-1, 14), (0, 9), (2, -1), (4, -11), (6, -21)$

c. $(-2, -1), (0, 3), (1, 5), (3, 9), (5, 13), (6, 15)$

For Exercises 6–8, use the graph below.



6. Make a table showing the coordinates of four points located on line A. What is the equation for line A?

7. Make a table showing the coordinates of four points located on line B. What is the equation for line B?

8. Is there a point with (x, y) coordinates that satisfies both the equation for line A and the equation for line B? Explain your reasoning.

9. Martin used some rules to generate the following tables:

i.

x	y
-1	6
0	8
1	10
2	12
3	14

ii.

x	y
0	5
3	5
6	5
9	5
12	5

iii.

x	y
-2	-5
-1	-4.5
0	-4
3	-2.5
4	-2
5	-1.5

iv.

x	y
-1	0.5
0	0
1	0.5
2	2
3	4.5
4	8
5	12.5

a. Make a graph of the data in each table. Show the graphs on the same coordinate axes.

b. Which sets of data represent a linear relationship? How do you know?