

activity sheet 1

Name _____

GRAPHING TRAIN TRAVEL

Liza Dash lives in Philadelphia and has to get to Atlanta as fast as possible. Since Liza has a fear of flying, she plans to travel by train. One train leaves at 12:00 noon and travels an average of 70 mph. A second train leaves 2 hours later but averages 85 mph. Assuming that the distance between the two cities is about 750 miles, which train should she take to arrive in Atlanta as early as possible?

1. If you average 70 mph, how many hours will it take to travel at least 750 miles?
2. Fill in the table with the distance traveled by each train at the end of each hour.

Time	Hours	Train 1	Train 2
12:00 a.m.	0		
1:00 p.m.	1		
2:00 p.m.	2		
3:00 p.m.	3		
4:00 p.m.	4		
5:00 p.m.	5		
6:00 p.m.	6		
7:00 p.m.	7		
8:00 p.m.	8		
9:00 p.m.	9		
10:00 p.m.	10		
11:00 p.m.	11		

3. What is the pattern in the distance traveled by train 1? Write an expression that represents y , the distance traveled, in terms of x , the number of hours since the train left the station.
4. What is the pattern in the distance traveled by train 2? Write an expression that represents y , the distance traveled, in terms of x , the number of hours since the train left the station.
5. Sketch the graph and describe what it represents.