PH 125 / LeClair   Spring 2009

Problem Set 5

The following problems are due 10 February 2009 at the end of the day.

1. Problem 7.51 from your textbook

2. Problem 8.27 from your textbook

The following problems are due 12 February 2009 at the beginning of class.

3. Problem 8.21 from your textbook

4. Problem 8.63 from your textbook

The following problems are due 13 February 2009 at the end of the day.

5. Problem 8.53 from your textbook

6. Problem 8.41 from your textbook

7. You're driving your car on the highway at 75 mph, and you notice a sign that says you are 75 miles from your destination. So if you continue driving at that speed, you'd be there in an hour. But, you're not going to do that, because then it wouldn't be a puzzler. When you have driven one mile and you are now 74 miles from your destination, you drop your speed down to 74 mph.

So, you drive that first mile at 75 mph; when you are 74 miles from your destination, you drop your speed down to 74 mph; and then 73 mph, 72 mph ... and so on. Until, finally, you get down to 1 mile from your destination and you're driving at one mile per hour.

And the question is, if you do this, how long is it going to take you to travel the entire 75 miles?