

MAT123, Paper Homework 7
due in recitation the week of 11/9

One day while you are working on Her Majesty's Secret Service, you are called upon to transport a prisoner, Ernst Stavro Blofeld, to the interrogation center. You load him into your high speed motor boat and leave the dock at precisely noon. Your boat can travel at the astonishing speed of 60 kilometers per hour. Unfortunately and unbeknownst to you, just before you left, Blofeld sneaked off of your boat, so you are cruising away with no prisoner on board. At 12:30, Blofeld steals an even faster boat and leaves from the same dock, traveling at 80 kilometers per hour in a direction that is 110 degrees counter-clockwise from you.

1. Write an equation for $D(t)$, the distance between your boat and Blofeld's boat at the time t , where t is the number of hours after noon.

2. How far apart are you and Blofeld at 3 pm?