Spring 2010

Barge Problem 2

Shooting Lorenzo Happiness Lorenzo the hamster is spending a solitary Valentine's Day in the xy-plane at the point $(2, 1)$. Feeling sorry for the lonely hamster, you decide to shoot a love arrow at Lorenzo. You are sitting at the point $(-1, -1)$. Your arrows have a mysterious property, however: They follow straight lines, but whenever your arrow crosses either the x-axis or the y-axis, the slope of that line doubles.

1. At what slope should you shoot your love arrow?

2. What points on the x-axis and y-axis will be hit by your arrow?

As usual, justify your face off.

The Rules:

1. Form a team with other Lafayette students. Each team must have 3, 4 or 5 members.

2. Solve the Problem of the Week with your team. The weekly problem will be posted on the department web page and and in the Math Dept. There will be 8 problems during the semester.

3. Get your solution to Gary Gordon by Saturday, Feb. 20 at 6:00 a.m. You can either turn in a hard copy or send your solution by email to `gordong@lafayette.edu`.

Deadline: Saturday, Feb. 20 at 6:00 a.m.