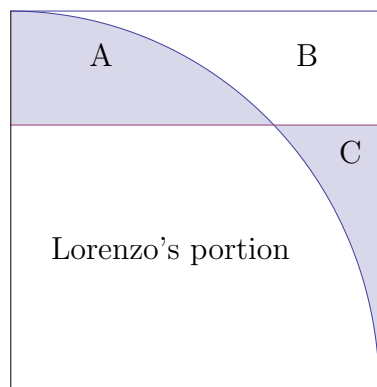


Spring 2010

Barge Problem 4

Hamster pie! Hamsters enjoy pie. (What did you think the title meant?) Four hamsters wish to share a delicious avocado-grapefruit pie. The pie is in the shape of a square, but it has already been sliced into two pieces by a quarter of a circle. Your job is to create four pieces by cutting along a horizontal line, as in the picture.



You are Lorenzo - deal with it. Here are some greedy questions for you to chew on.

1. Where should you make your horizontal cut to minimize the total amount of pie hamsters A and C receive? Is this the same as maximizing your own portion?
2. What if you wanted to equalize the portions hamsters A and C receive? Where should you make your horizontal cut to do this?
3. Can you make all 4 portions the same size? How about 3 of the 4?

As usual, explain everything to my satisfaction (whatever that is). Best answer gets a hamster pie.



Deadline: Saturday, March 6 at 6:00 a.m.