

MATH 151 Homework 21

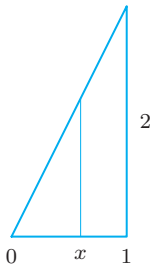
Due 4/8

Read Section 4.7.

Do Section 4.7 Exercises 10, 16, 34 (be sure to carry out all steps from page 278)

Also, do the following exercises.

SF50. A vertical line divides the triangle below into two pieces. Find the value of the coordinate x that maximizes the product of the two areas.



SF51. The cost of fuel to propel a boat through the water (in dollars per hour) is proportional to the cube of the speed. A certain ferry boat uses \$100 worth of fuel per hour when cruising at 10 miles per hour. Apart from fuel, the cost of running this ferry (labor, maintenance, and so on) is \$675 per hour. At what speed should it travel so as to minimize the cost *per mile* traveled?