

Math 151

Quiz 8

Justify all answers with neat and organized work. Clearly indicate your answers.
10 points possible.

1. (5 pts.) If 2480 cm^2 of material is available to make a box with a square base and an open top, find the dimensions that give the largest possible volume for the box.

2. (5 pts.) A sports team plays in a stadium that holds 70,000 spectators. With ticket prices at \$15, the average attendance had been 30,000. When ticket prices were lowered to \$11, the average attendance rose to 50,000.

(a) Find the demand function, assuming that it is linear.

(b) How should ticket prices be set to maximize revenue?