

2. (13 points) A management training company finds that 1000 people will attend its seminar on management training techniques if the price is \$400 per person. The company estimates that for each \$5 reduction in price, an addition 20 people will attend the seminar.

(a) Let x be the number of people who will attend the seminar at price p dollars per person. Use the given information to write two data points of the type (x, p) and then use these points to find the equation of the function $p = f(x)$.

(b) Write the revenue function for this situation.

(c) Use calculus to determine the value of x that will result in maximum revenue.

(d) What ticket price will result in maximum revenue?

(e) What will the maximum revenue be?
