King Fahd University of Petroleum and Minerals Department of Mathematics and Statistics

## Math 131 (Term 153) - Quiz 1

Student Name\_\_\_\_\_

Student ID: \_\_\_\_\_

## Exercise 1 [5 points]

The demand function for an office supply company's line of plastic rulers is p = 0.9 - 0.00045q, where p is the price (in dollars) per unit when q units are demanded (per day) by consumers. Find the level of production that will maximize the manufacturer's total revenue, and determine this revenue.

Exercise 2 [5 points] Solve  $\begin{cases} x = y + 1\\ y = -2\sqrt{x+2} \end{cases}$