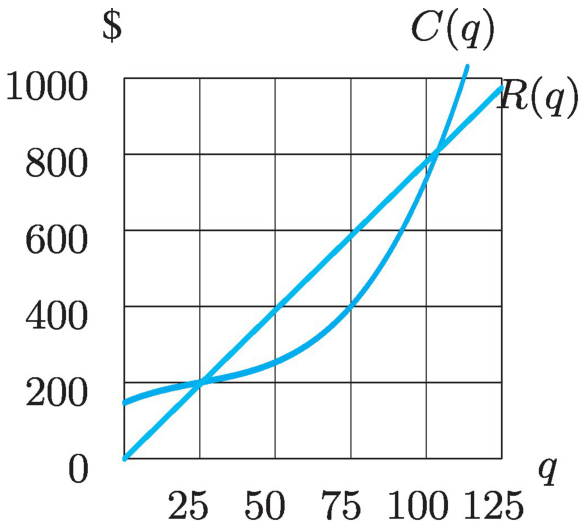
Name:
Section 2.5 - In class example
Math 151 – Spring 2018



1. Cost and revenue functions for a charter bus company are shown in the figure above. Should the company add a $50th$ bus? How about a 90th? Explain your answers using marginal revenue and marginal cost.

2. A company's cost of producing q liters of a chemical is $C(q)$ dollars; this quantity can be sold for $R(q)$ dollars. Suppose $C(2000) = 5930$ and $R(2000) = 7780$.

   (a) What is the profit at a production level of 2000?

   (b) If $MC(2000) = 2.1$ and $MR(2000) = 2.5$, what is the approximate change in profit if q is increased from 2000 to 2001? Should the company increase or decrease production from q = 2000?

   (c) If $MC(2000) = 4.77$ and $MR(2000) = 4.32$, should the company increase or decrease production from $q = 2000$?