Assignment 11

Solutions to all the following problems should be written up and hand in to your TA.

Due in recitation on Thursday, November 15, 2001

Section 5.1: Problems 4, 16
Section 5.2: Problems 3, 16, 22, 34, 46
Section 5.3: Problems 6, 12, 34

Supplementary Problem*: A manufacturer has determined that the marginal cost function is

\[
\frac{dc}{dq} = 0.003q^2 - 0.4q + 40,
\]

where \(q\) is the number of units produced. If the marginal cost is $27.50 when \(q = 50\), and fixed costs are $5000, what is the average cost of producing 100 units?

*Problem taken from Introductory Mathematical Analysis for Business, Economics, and Life Sciences, Ernest F. Haeussler, Jr. & Richards S. Paul (Eighth Edition)