ECO 401-002, 003
Spring 2011
Problem Set #6

Due: Wednesday, April 6

1. Problem 9.2, p. 378, in the textbook.

2. True or false, and explain with a diagram: To maximize profit, a firm should produce that output where the difference between price and average cost is at a maximum.

3. Problem 9.3, p. 379, in the textbook. Note: TFC=$40, not $30.
    a) Fill in the table, then graph TR, TC, and profit in the same diagram. Indicate which output will maximize profit.
    b) In a diagram immediately beneath the first one, graph MR, ATC, and MC. Indicate which output will maximize profit.
    c) Now, how would your choice of output change if TFC=$60 instead of $40?

4. While the Atkins diet craze has pork producers thinking that they are in hog heaven, potato farmers are getting fried. The industry was in long-run equilibrium at a price of $1.50 per bushel in the pre-Atkins period, but lately price has fallen to $1.00 per bushel, so that most producers are suffering economic losses.
    a) Using diagrams for the firm and for the market, illustrate the initial long-run equilibrium, and then show the impact of the decline in the market demand for potatoes.
    b) Predict the future of potato farming. Explain what you think will happen in the long run to the price of potatoes, the market output, the number of potato farmers, and the economic profitability of growing potatoes.

5. Read the description of the supertanker market on pp. 359-360. Long-run equilibrium in the market for supertanker services is represented by a price index value of 80. Draw a diagram like Figure 9.17, except make the vertical axis correspond to the vertical axis in Figure 9.16. Using your diagram, explain why the price index was 200 in September 1973, and then why it dropped to below 50 in 1975.