Econ 101 Winter 2012 Professor Dan Friedman
Managerial Economics Additional Practice Questions for MT

1. You own a scooter repair shop in downtown Santa Cruz. You find that your production function is Q=K^{(1/2)}L^{(2/3)},where K is the number of machines you purchase. Due to a leasing contract between the supplier and yourself, you cannot purchase anymore of or get rid of any machines. You have already spent a total of $180 on 9 machines. The wage you face for labor, L, is $100 per day. If you price each repair at $200, what is the profit -maximizing level of labor you will hire.

2. CBA firm has $2 million in sales, a Lerner index of 0.8 and marginal cost of $100 and competes against a 1000 firms in its relevant market.
   a)What price does the firm charge its consumers?
   b)By what factor does the firm markup its price over marginal cost?
   c)Another firm, ZXY, charges $300 for the same product. If Lerner index and the associated markup are the only differences between CBA and ZXY, which one has greater market power?

3. The inverse market demand in a homogeneous-product Cournot duopoly is $P=200-6(Q_1+Q_2)$ and costs are $C_1(Q_1)=10Q_1$ and $C_2(Q_2)=30Q_2$.
   a) Determine the reaction function for each firm
   b)Calculate each firm's equilibrium output
   c)Calculate the equilibrium market price
   d) Calculate the profit each firm earns in equilibrium

4. Two firms compete in a market to sell a homogeneous product with inverse demand function P=100-2Q. Each firm produces at a marginal cost of $10 and has no fixed costs. Use this to compare the output levels and profits in settings characterized by:
   a) Stackelberg (Firm 1 is the leader)
   b)Bertrand (Firm 1 and Firm 2 produce the same amount)
   c)Collusive behavior

5.

		Firm B	
	Strategy	High Price	Low Price
Firm A	High Price	40,40	-10,50
	Low Price	50,-10	0,0

   a) Identify the dominant strategy (if there is any).
   b) Identify one-shot pure Nash equilibrium (if there is any).