Evidence Indicates that climate in an area influences labor supply. As an illustration assume the following labor supply function:

\[ Q_L^S = -200 + 200 W - 50 R \]

Where

- \( Q_L^S \) = quantity of labor supplied,
- \( W \) = wage rate, and
- \( R \) = average rainfall per month.

The demand for labor is given by

\[ Q_L^D = 1500 - 100 W \]

Where

- \( W \) is as defined above and
- \( Q_L^D \) = quantity of labor demanded.

a) What will be the employment level in Reigns, Rhode Island (a city with an average of 2 inches rainfall per month)?

b) Do wet areas (one with large amounts of rain) have higher or lower wages than dry areas: Explain using equations or graph.

c) What would the unemployment rate in Reigns be if the minimum wage were $8 per hour?

4. TEXT: Page 49, Problem 7
HOMEWORK #2: 1/30/07

1. TEXT: Page 86, Question for Review #2
2. TEXT: Page 86, Problem 1
3. TEXT: Page 87, Problem 5

HOMEWORK #3: 2/1/07

1. Erskine Erlemmeyer has the following utility function:

   \[ U = 10 X_1 - X_1^2 + 20 X_2 - x_2^2 \]

   Where
   
   \( U = \) utility,

   \( X_1 = \) commodity one, and

   \( X_2 = \) commodity two.

   Fill in the following chart denoting the utility Erlemmeyer receives at various consumption levels.

   Erlemmeyer’s Utility

   \[ \begin{array}{cccccccc}
   X_2 & 0 & 1 & 2 & 3 & 4 & 5 & 6 \\
   \hline
   0 & & & & & & & \\
   1 & & & & & & & \\
   2 & & & & & & & \\
   3 & & & & & & & \\
   4 & & & & & & & \\
   5 & & & & & & & \\
   6 & & & & & & & \\
   7 & & & & & & & \\
   \end{array} \]

2. Prove that indifference curves cannot intersect each other.

3. TEXT: Page 87, Problem 8 (a)

HOMEWORK #4: 2/8/07

I. TEXT: Page 87-88: Problems 14, 15 and 18

II. Given the utility function of the last homework assignment
U = 10 X_1 - X_1^2 + 20 X_2 - X_2^2

a) Compute the optimal consumption of X_1 and X_2 if the price of X_1 and X_2 are $1 each and Erskine Erlemmeyer has $6 to spend.

b) Answer (a) if the price of X_2 rises to $2.

Note that in this problem one can buy fractional units of X_1 and X_2.

HOMEWORK #5: 2/13/07


2. TEXT: Page 116 – Exercise 4.1

3. Define: Engel Curve

4. Given the utility function of the last homework assignment

   U = 10 X_1 - X_1^2 + 20 X_2 - X_2^2

   a) Compute the optimal consumption of X_1 and X_2 if the price of X_1 and X_2 are $1 each and Erskine Erlemmeyer has $6 to spend.

   b) Answer (a) if Erskine Erlemmeyer now has $9 to spend.

   c) Are X_1 and X_2 normal, inferior, or luxury goods? Justify.

   One can in this problem buy fractional units of X_1 and X_2.

HOMEWORK #6: 2/15/07

1. From Homework Assignment #5 Do 4 (c)

   Given the utility function of the last homework assignment

   U = 10 X_1 - X_1^2 + 20 X_2 - X_2^2

   Are X_1 and X_2 normal, inferior, or luxury goods? Justify.

2. TEXT: Page 142: Questions for Review 13, 14 and 15


HOMEWORK #7: 2/20/07
1. TEXT: Pages 182-3: Problems 4 and 6.

2. TEXT: Page 165: Exercise 5-3.

**HOMEWORK #8: 2/27/07**


**HOMEWORK #9: 3/1/07**

1. TEXT: Page 309: Problem 4

2. TEXT: Page 310: Problem 9

3. TEXT: Page 310: Problem 10

**HOMEWORK #10: 3/6/07**

TEXT: Page 321 – Problem1 (Do only (a), (b), (d) and (e))

**HOMEWORK #11: 3/13/07**

TEXT: Page 352 – Problems 5, 6 and 7

**HOMEWORK #12: 3/20/07**

TEXT: Page 352 – Problems 1, 2 and 3

**HOMEWORK #13: 3/22/07**

1. Assume a firm has a cost function

   \[ C = 8 + 2Q + 0.1Q^2 \]

   Where

   \[ C \] – represents total costs and

   \[ Q \] – represents production output.

   a) What are the firm’s fixed costs.
b) How much would the firm produce if it sells its output for $5 per unit?

c) How much would it produce if it sells its output for $2 per unit?

d) How much would it produce if it sells its output for $3 per unit?

e) Draw the firm’s supply curve.


**HOMEWORK #14: 3/27/07**

1. Assume the following demand curve:

   \[ Q_D(t) = 100 - P(t) \]

   And the following supply curve:

   \[ Q_S(t) = 10 \, P(t-1) \]

   Make a table of the prices and quantities for five years if the initial price is assumed to be 7 dollars.

2. There exists 10,000 firms in a market each with MC curve \( MC = 2q \)

   Where
   \[ Q = \text{quantity of production (of the firm).} \]

   Assume aggregate demand is 20,000 and independent of price.

   a) What is the market equilibrium and price?

   b) What happens to the equilibrium price and quantity if one firm drops out of the market for some exogenous reason?

3. Repeat Question #2 above if aggregate demand is: \( Q = 40000 - 5000P \).

**HOMEWORK #15: 4/10/07**

TEXT: Page 449: Problem 1

**HOMEWORK #16: 4/12/07**
1. All 10,000 firms in the last homework assignment were bought out by one company. How would pricing practices change? Give a numeric answer.


**HOMEWORK #17: 4/17/07**


**HOMEWORK #18: 4/19/07**

TEXT: Page 521, Exercise 14.8 and Page 541: Problem 7 (a)

**HOMEWORK #19: 4/26/07**

For Questions 1 to 5 below state whether true or false and briefly explain why:

1. A Chamberlinian monopolistically competitive firm in long-run equilibrium will always produce on a downward-sloping portion of its long-run average cost curve.

2. If a new firm enters a Chamberlinian industry with 30 incumbent firms and all, including the entrant, charge the same price, then all firms will set 1/31 of the total industry output.

3. The existing firms in a Chamberlinian industry are currently earning economic profits at the short-run equilibrium price. The long-run equilibrium price will necessarily be lower than the current price.

4. If there are economies of scale in the production of each model of automobile, then the poor would pay much less for their cars if we produced many fewer models than we do now.

5. If a business owner is delighted to accept additional orders at the current price, he or she cannot have been a profit-maximizing, perfectly competitive producer.

**HOMEWORK #20: 5/1/07**

1. Page 499 – Problem #1

2. Page 500 – Problem #8

**HOMEWORK #21: 5/8/07**

1. Page 609: Problem #1
2. Page 609: Problem #2

HOMEWORK #22: 5/10/07

Why is conflict smaller among trading partners?