

PRINCIPLES OF MICROECONOMICS (ECON 1101 SECTION 056)
ASSIGNMENT #1

Due Monday, 15 Sep 2008, 5:00 pm. Assignments should be typed and submitted in hardcopy. Graphs and calculations may be handwritten but must be neat and professional. Students are welcome to discuss homework in groups, but each student must prepare and submit a unique assignment and note the names of other group members.

1. Consider the statewide market for maple syrup. For each of the following situations indicate: (1) whether supply, demand or both shift, (2) what type of shift each is, (3) in which direction each shift is, and (4) what the effect on equilibrium price and quantity is. (Hint: Draw graphs to find the effect on price and quantity.)
 - (a) A fungal blight strikes blueberries and sends the price of jam to a record high. *(8 points)*
 - (b) Retirement resorts in northern Minnesota expand rapidly, raising the population and buying out and demolishing several large syrup operations. *(8 points)*
 - (c) A popular cable cooking show convincingly promotes maple syrup as a replacement for refined sugar in most recipes. *(8 points)*
 - (d) Food scientists develop a more efficient process for making pancake mix, and the price of pancake mix falls. At the same time, labor costs rise in Minnesota forests after more workers enter tourism-related industries. *(8 points)*

2. The market for folding chairs has demand described by $P=31-Q/50$ and supply described by $P=7+Q/100$.
 - (a) Draw a fully labeled graph of supply and demand in this market. *(8 points)*
 - (b) Calculate the equilibrium price and quantity. *(12 points)*

3. The market for recumbent bicycles in Minneapolis has demand described by $P=2300-30Q$ and supply described by $P=600+4Q$.
 - (a) Calculate the equilibrium price and quantity. *(10 points)*For parts b,c, and d, assume regulators impose a price ceiling of 700.
 - (b) Calculate the quantity demanded at the new price. *(5 points)*
 - (c) Calculate the quantity supply at the new price. *(5 points)*
 - (d) State whether a surplus or a shortage arises and calculate the magnitude. *(5 points)*

4. The market for purebred dachshunds has demand described by $P=250-Q$ and supply described by $P=10+3Q$.
 - (a) Calculate the equilibrium price and quantity. *(9 points)*
 - (b) Calculate the price ceiling that would limit the number of dachshund sales to 25. *(7 points)*
 - (c) Calculate the price floor that would limit the number of dachshund sales to 25. *(7 points)*