Problem Set #2 Name________________
PAI 897
Professor John McPeak Due_________________

1) The US government places a price floor on the producer price of milk. Currently, farmers receive $2.00 per gallon of milk, and 400,000 gallons are sold per day.

   a) If the price floor is set at $3.00 per gallon, what will happen to the equilibrium quantity supplied and demanded (show on a graph and label everything)?

   b) If the price floor is set at $1.00 per gallon, what will happen to the equilibrium quantity supplied and demanded (show on a graph and label everything)?

   c) In either (a) or (b), will there be excess supply or demand? Y N

      i. If so, in which case(s) will it occur and is it excess supply or excess demand?

2) The price of gasoline is $2.00 and the price elasticity of demand is -0.4.
   a) How much will a 10% reduction in quantity placed on the market increase the price?

   b) If -0.4 is a short run elasticity, do you expect that this price increase brought about by this reduction in quantity will be more or less in the long run (remembering that things tend to become more elastic in the LR than the SR). Why?

3) Say we know that the current price elasticity of demand for Twinkies is -9.0.

   a) Is the price elasticity of demand for Twinkies inelastic or elastic?

   b) How much would purchases fall from their current level of 100 million units / day if the price of Twinkies is increased by 10%?

4) Ice Scream: Milk-Fat Prices Raise Cost of Summer Treat

Wall Street Journal; New York, N.Y.; Jul 24, 2001;

Just when you really, really want an ice cream cone, the price is rising. But it isn't summertime gouging by manufacturers. The cost of milk fat, the principal ingredient in ice cream, jumped 71% during the past six months to $2.22 at the end of June. As a result, retail prices are up 4% from last year, manufacturers say, triggering a 3% drop in consumption.

Based on the information presented above, answer the following questions.

a) Draw a supply and demand graph representing the situation in the retail ice cream market before the milk fat price rise. Illustrate on this graph where the impact of the milk fat price rise will manifest itself in the retail ice cream market.

b) What is the implied price elasticity of demand for ice cream based on the information in the last sentence?

c) Is the computed elastic inelastic, unit elastic, or elastic?

5) Concert ticket prices hit new high note

USA Today, July 10, 2001

> *It costs a lot more to see your favorite band in person, and there seems to be no end in sight to the skyrocketing ticket costs. The average ticket price during the first six months of 2001 was $46.69, a 4.2% jump from the same period last year, according to a report released Monday by the concert trade publication Pollstar. In the past four years, concert ticket prices have nearly doubled. The report suggests concertgoers have finally had enough: Ticket sales were down 15.5% this year vs. the first six months of 2000.*

a) What is the implied price elasticity of demand for concert tickets?

b) Is this inelastic, unit elastic, or elastic?

c) Do you think the situation outlined in the paragraph above could be explained by a shift in consumer tastes away from concert going in response to technology improvements in home entertainments systems between 2000 and 2001? Explain using supply and demand curves why or why not.

6) Illustrate what happens if we impose a specific tax of size τ on producers and contrast it to a specific tax of size τ placed on consumers.