PPA 723
Practice questions for Quiz one.

1) Provide the formula for calculating the following, and answer all follow up questions.

    a. Define a supply elasticity.

        i. Is it positive or negative? Why?

    b. Define an own-price demand elasticity.

        i. Is it positive or negative? Why?

    c. Define a cross price demand elasticity.

        i. Is this positive or negative if the two goods in question are substitutes? Why?

    d. Define an income elasticity of demand.

        i. Is this positive or negative for an normal good? Why?

2) Last year, sports shops in the Central New York area sold 200,000 SU Orangemen football sweatshirts during the first four games of the season. The price per sweatshirt was $24. This year, the price per sweatshirt is $22, and over the same period, the sport shops have sold 250,000. Which of the following explanations is consistent with the facts?

    a. Demand has shifted up this year compared to last year since the team is doing better.

    b. Demand has shifted down this year compared to last year due to lower consumer incomes reflecting the slow growth of wages and large growth in unemployment over the past year in this area.

    c. Supply has shifted up due to an increase in the price of orange dye since the FDA banned the less expensive orange dye used in the production of last year's sweatshirts since it causes some consumers to have their eyebrows fall out.

    d. Supply has shifted down due to a decrease in the cost of supplying sweatshirts due to the new US – Bangladesh trade agreement that allows cheaper production of sweatshirts in Bangladesh.

Draw each and explain which explanation you choose and why.

3) The demand curve is given to you as Q=100-50*P.
   a. Fill out the following table (use the relatively higher price / relatively lower quantity pair in the elasticity calculation).

| Price | Quantity | Elasticity |
|---|---|---|
| $0.50 | | |
| $0.75 | | |
| $1.00 | | |
| $1.25 | | |
| $1.50 | | |

   b. Draw this demand curve with price on the y axis and quantity on the x axis. Identify on this graph the range over which the demand curve is inelastic, and over which it is elastic. Identify the unit elastic point.

4) Assume the price of good 1 is $20 per unit, the price of good 2 is $20 per unit, and the consumer's income is $100.

a. Draw the budget constraint if the consumer's income is $100.

b. If the price of good 1 changes to $10 per unit, illustrate on a graph how this changes the budget constraint.

c. If the consumer's income increases to $200 given the original prices, illustrate on a graph how this changes the budget constraint.

5) The demand curve for milk is defined by $Q^d = 70 - 20 * p$ and the supply curve by $Q^s = 10 + 10 * p$.

    a. What is the equilibrium price – quantity pair?

    b. If the government sets a price floor at $3.00, will there be a surplus or a shortage of milk?

    c. How much surplus or shortage will there be?

    d. Draw the original demand and supply graph, and show the situation with a price floor. Label everything that moves!!!

6) Say that you know for a particular consumer and particular consumption bundle the marginal utility of consuming coffee is 5 and the marginal utility of consuming Tylenol is 10.

   a. The ratio of these marginal utilities defines the slope of what curve (no, the answer is not "the studying for PPA quiz" curve)?

   b. If the price of coffee is 10 and the price of Tylenol is 15, why is the consumption bundle identified above not an optimal bundle?

   c. Should we increase coffee consumption alone, increase Tylenol consumption alone, increase both, or reduce both to arrive at the optimal bundle? Why? (Illustrate using a graph)

7) Suppose you are setting tolls for the Tappan Zee Bridge. The current toll is $2 per trip and there are currently 100,000 trips per hour.

    a. How many trips will there be if you raise the toll by 25% and the price elasticity of demand for bridge crossing is -0.5?

    b. How will this change your revenue per hour?

    c. What if the estimate of the price elasticity in (a) is wrong and price elasticity is in fact -1.5. What will be the change in revenue per hour for the same price change if this second elasticity is in fact true?

8) The commodity in question is tickets on the train between Syracuse and New York City. Draw four separate graphs showing: an upward demand shift, a downward demand shift, an upward supply shift, and a downward supply shift. Provide a story to explain what caused each one (like I make up stories to illustrate the shifts in class).

9) A US government official appears on Meet the Press ( a weekly national political affairs TV show) and says that a program of cooperation between the US government and the Colombian government to eradicate coca supply is working in the war against drugs as evidenced by the fact that the street price of cocaine has increased by 50% in the past year.

    a. If this interpretation is correct, should the market equilibrium amount of cocaine have increased or decreased since last year (show on a graph).

    b. Can the government official also claim that the street price of cocaine going up and the estimated total quantity sold decreasing supports the argument that programs aimed at convincing school children not to use drugs are effective?  Why or why not?

10) Consumer theory basics.

    a.  What is the technical name for the slope of the budget line?

    b.  What is the technical name for the slope of the indifference curve?

    c.  Which of these reflects the consumer's preferences?

    d.  Distinguish between diminishing marginal utility and diminishing utility.

    e.  Describe how having two goods which are both inferior in a two good graph violates the "more is better than less" principle.