

ECON 310

Assignment #1

**Due: September 12, 9:00am**

Please write your answers on a separate piece of paper and *show all of your work*.

Make sure you write legibly!

1. Chapter 1, 6<sup>th</sup> edition: Problem Set #s 10, 11, 14b,c (7<sup>th</sup> edition: Problem Set #s 11, 12, 15b,c)  
**[14 pts total]**

2. Suppose the demand curve for a good is given by  $Q = -12P + 2400$  and the supply curve is given by  $Q = 8P - 400$ . **[20 points total]**

- i. Find the equilibrium price and quantity. [2pts]
- ii. Suppose the government imposes a \$50 per unit excise tax. The tax's legal incidence is paid by \_\_\_\_\_. [1pt]
- iii. Find the new market price and equilibrium quantity. [2pts]
- iv. What is the price actually paid by demanders? What is the price actually received by suppliers? [2 pts]
- v. What percent of the tax is paid by demanders? Suppliers? [2pts]
- vi. If the demand curve were steeper, demanders would pay a \_\_\_\_\_ percent of the tax. [1pt]
- vii. Suppose this tax was a sales tax. Who would pay the legal incidence of this tax? [1pt]
- viii. Under a sales tax, what is the new equilibrium price and quantity? What price do demanders pay? What price do suppliers receive? [4 pts]
- ix. Illustrate the two scenarios graphically. Note- you do not need to draw to scale. Just illustrate the effect of an excise and a sales tax in general. [4pts]
- x. If you are a demander, under which scenario would you prefer to be taxed? Why? [1pt]

3. Chapter 2, Numerical Exercise N1 **[8 pts]**

4. Chapter 2, Problem Set #1 **[2 pts]**

5. Multiple Choice **[6 pts]**

- i. If the demand of oil falls and all other relevant factors remain unchanged, then
  - a. the supply for oil will fall
  - b. the quantity supplied of oil will fall
  - c. the supply for oil will rise
  - d. the quantity supplied of oil will rise

- ii. The term demand refers to
- a collection of numbers, listing the quantities demanded at a variety of hypothetical prices.
  - the information on tastes, incomes, and prices needed to determine people's desired purchases of a commodity.
  - the amount of a commodity that is being purchased under current market conditions.
  - the quantity purchased at each and every possible level of income.
- iii. The price of silver increases from \$10 per ounce to \$15 per ounce while the price of gold increases from \$300 per ounce to \$500. In this situation, the price of silver relative to the price of gold has
- fallen.
  - risen.
  - remained the same.
  - cannot be determined given the information provided.
- iv. Comparing a market basket A to other market baskets, we can say that for a typical consumer, A is preferred to baskets to the
- southwest but less preferred to baskets to the northeast
  - northeast but less preferred to baskets to the southwest
  - northwest but less preferred to baskets to the southeast
  - southeast but less preferred to baskets to the northwest
- v. An indifference curve shows the baskets of goods which
- have the same marginal values.
  - the consumer can purchase, given his income and the prices he faces.
  - are the most preferred of the baskets within his budget.
  - are all equally desirable, providing the consumer with some fixed level of satisfaction.
- vi. When Arnold has 5 eggs, his marginal value is 15¢ per egg. We can conclude that Arnold
- places a value of 3¢ on each egg he owns.
  - needs to purchase more than 5 eggs to reach his optimum.
  - receives 75¢ worth of total satisfaction from his 5 eggs.
  - would refuse to pay more than 15¢ for a sixth egg.