**Fall Case Study 2**

Econ 402

**Question 1:** Inhaled corticosteroid are the most effective long-term control medicine for asthma. Assuming that it is a life-saving drug for individuals who have asthma, answer the following questions:

1. Draw the demand curve for the above-mentioned medicine. In the same graph, draw an upward sloping supply curve. The equilibrium price of this medicine is $50, and the corresponding equilibrium quantity is 2 units. (Show the equilibrium price and quantity in the diagram). **20 points**
2. The federal government imposes a sales tax on this medicine. Assume that sales tax is $10. Show the changes in the above diagram (by changes I mean show the shifts due to sales tax). What is the amount paid by buyers after tax? Who will bear the entire burden of taxation? How is this case different from usual sales tax scenario? **30 points**

**Question 2:** Answer the following questions based on the graph below:



**3**

**Supply**

**Demand**

**12**

**10 = Price Floor**

**8**

**5**

1. In the above graph, the blue lines indicate the demand and supply curves. The equilibrium price is $ 8. The supply curve starts from $ 3 (costs or Willingness to Sell for the seller). This is a market for apples. The government now imposes a binding **price floor (green price line in the above graph).** After the price floor the market price of apples goes up to $10. Your first task is to mark the equilibrium price on the graph as **30** units (draw your own graph). The quantity supplied and quantity demanded when price floor is imposed are **34 units and 28** units respectively. **Mark these on the graph.** (**10 points)**
2. When there is a binding price floor in the apple market, is there a shortage or surplus? How large will it be (calculate it from the given quantities)? **(10 points)**
3. Calculate the consumer surplus and producer surplus when the market price is $ 8 (equilibrium price in the above graph). **(20 points)**
4. Calculate the producer surplus (only) when there is a **binding price floor of $10.** Are the producers benefited or hurt from this binding price floor and how (explain in words)? **(10 points)**