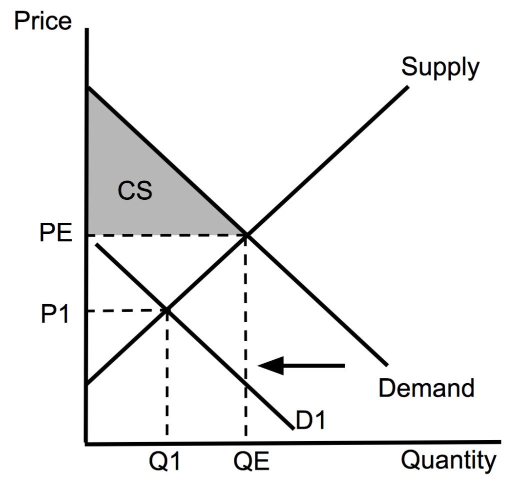
Microeconomics Unit 2
Free Response Questions

FRQ #1- Assume that beef is sold in a competitive market and that beef is a normal good and a substitute for chicken. See video in Ultimate Review Packet for detailed explanations.



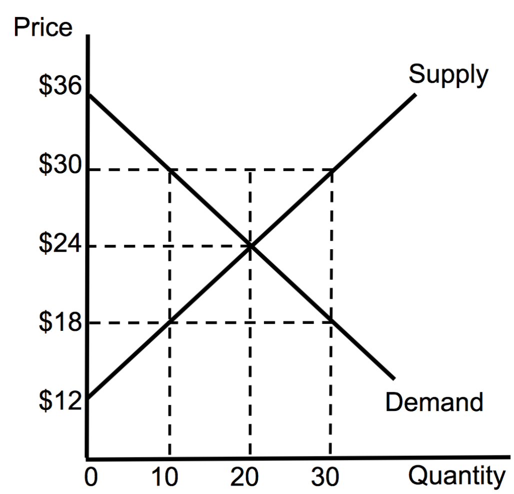
(a) Draw a correctly labeled graph of the beef market.
  (i) Show the equilibrium price and quantity of beef, labeled PE and QE.
  (ii) Shade in the area of the total consumer surplus at the market equilibrium price and quantity. See graph
  (iii) If the government places a price ceiling on beef below PE, would the demand for beef increase, decrease, or stay the same? Explain. The demand for beef would stay the same. A change in price doesn't shift the curve, it moves along the curve. A decrease in the price would increase the quantity demanded, but not change the demand.

(b) On your graph, show the effect on the market for beef if the price of chicken falls. Label the new equilibrium price and quantity P1 and Q1. See graph. The demand for beef will decrease since the price of a substitute (chicken) decreased.

(c) Assume instead that the incomes of consumers increase and the government subsidizes beef producers. What will happen to the equilibrium price and quantity of beef as a result of both events? Explain. The quantity will increase and the price will be indeterminate (ambiguous). This is a double shift. The demand increase would cause the price to increase and the supply increase would cause the price to decrease. This means that you can't tell what will happen to the price. It might increase or it might decrease. It depends on the severity of the shifts.

(d) Assume that the total revenue for chicken producers increased when the price of chicken fell. Is the demand for chicken relatively inelastic, relatively elastic, or unit elastic? The demand for chicken is relatively elastic since the price fell and the total revenue increased.

FRQ #2- The graph below shows the market for extra large Chicago-style pizzas. See video in Ultimate Review Packet for detailed explanations.



(a) Calculate the total consumer surplus at the market equilibrium price and quantity. Show your work. The consumer surplus is $120. The area of a triangle is ½ base x height. The base is 20 and the height is $12. $240 divided by 2 is $120.

(b) If the government imposes a price ceiling at $30, is there a shortage, a surplus, or neither? Explain. Neither. A price ceiling above market equilibrium has no effect on the market. This ceiling is not binding.

(c) Assume that the price fell from $24 to $18.
  (i) Calculate the price elasticity of demand in this price range. Show your work. -2 = 50%/-25%. The elasticity of demand is the percent change in quantity divided by the percent change in price. The price fell 25% and the quantity increased 50%.
  (ii) In this price range, is demand perfectly inelastic, relatively inelastic, unit elastic, relatively elastic, or perfectly elastic? Relatively elastic.

(d) Assume instead that the government placed a $12 per unit tax on extra large Chicago-style pizzas.
  (i) Calculate the total tax revenue collected by the government. Show your work. $120. The tax per unit of $12 times the new quantity of 10.
  (ii) Calculate the deadweight loss. Show your work. The deadweight loss is $60. The area of a triangle is ½ base x height. The base is 10 and the height is $12. $120 divided by 2 is $60.
  (iii) If the demand for extra large Chicago-style pizzas became more inelastic than the supply, will the tax burden fall more on buyers and less on sellers or more on sellers and less on buyers, or equally on buyers and sellers? The tax burden would fall more on buyers and less on sellers.