



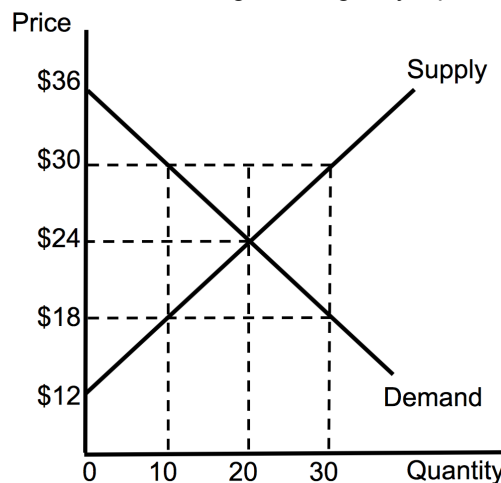
## Microeconomics Unit 2

# 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.

- Draw a correctly labeled graph of the beef market.
  - Show the equilibrium price and quantity of beef, labeled PE and QE respectively.
  - Shade in the area of the total consumer surplus at the market equilibrium price and quantity.
  - If the government places a price ceiling on beef below PE, would the demand for beef increase, decrease, or stay the same? Explain.
- On your graph, show the effect on the market for beef if the price of chicken falls significantly. Label the new equilibrium price and quantity P1 and Q1.
- 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.
- 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?

**FRQ #2-** The graph below shows the market for extra large Chicago-style pizzas.



- Calculate the total consumer surplus at the market equilibrium price and quantity. Show your work.
- If the government imposes a price ceiling at \$30, is there a shortage, a surplus, or neither? Explain.
- Assume that the price fell from \$24 to \$18.
  - Calculate the price elasticity of demand in this price range. Show your work.
  - In this price range, is demand perfectly inelastic, relatively inelastic, unit elastic, relatively elastic, or perfectly elastic?
- Assume instead that the government placed a \$12 per unit tax on extra large Chicago-style pizzas.
  - Calculate the total tax revenue collected by the government. Show your work.
  - Calculate the deadweight loss. Show your work.
  - 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?