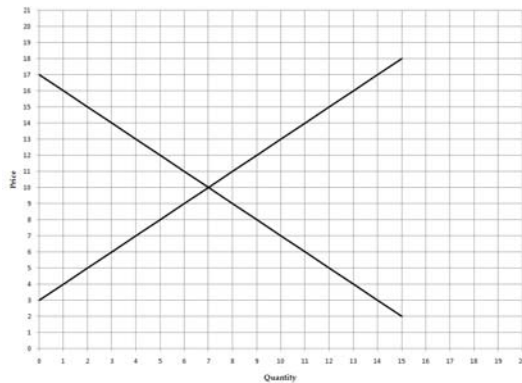*The charts below show supply and demand curves. Solid lines are original supply and demand curves, and dotted lines are changes in supply and demand.*

Use the chart below to answer 1-4.
(1) In the chart below, what is the equilibrium price & quantity?

P = _____ Q = _____

(2) Suppose that the demand curve increases, such that its new formula is: P = 19 – 1(Q). This, and any shift in the supply or demand curve, is referred to as an exogenous shock. If price does not change due to this exogenous shock, there will be a(n) *(circle all that are correct)*

    (a) excess demand of 1 unit
    (b) excess supply of 2 units
    (c) excess demand of 2 units
    (d) excess supply of 1 unit

(3) Price will change though. When price changes to equilibrate supply and demand in response to an exogenous shock, this is called an endogenous adjustment. After the demand curve shift in Question 2, what is the new equilibrium price and quantity?

P = _____ Q = _____

(4) Suppose that the good in question is pork. Which of the following would cause an increase in demand for pork. Remember that the major expense of producing pork is corn. *(circle all that are correct)*

    (a) a rise in the price of beef
    (b) a fall in the price of corn
    (c) bad publicity of how hogs are raised
    (d) good publicity about pork nutrition

Use the chart below to answer 5-8. Assume the diagram refers to the market for soybeans. Know that a major cost of soybean production is pesticides.

(5) The chart below depicts a(n)

    (a) decrease in supply
    (b) increase in supply
    (c) decrease in demand
    (d) increase in demand
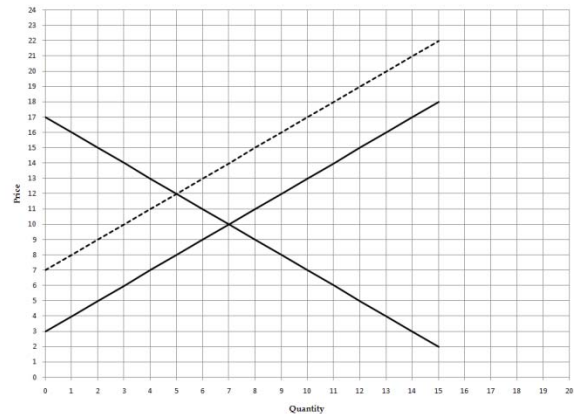
(6) Which of the following might cause the above graph. *(circle all that are correct)*

    (a) an increase in the price of soybeans
    (b) a decrease in the demand for soybeans
    (c) a rise in the cost of soybean production
    (d) a rise in the cost of pesticides

(7) After the exogenous shock, shifting the supply curve to the left, if price does not change, there will be a(n) *(circle all that are correct)*
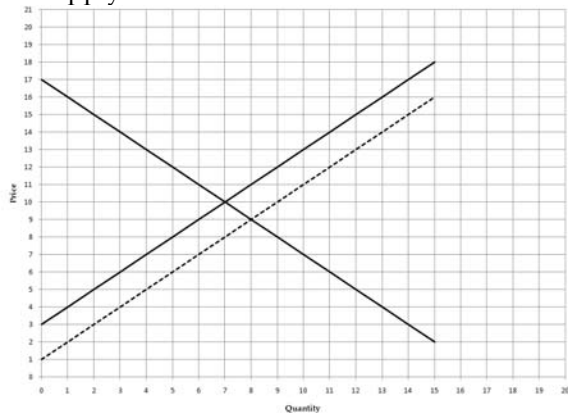
    (a) excess demand of 2 units
    (b) excess supply of 4 units
    (c) excess demand of 4 units
    (d) excess supply of 2 units

(8) Price will change though. After the endogenous adjustment, what is the new equilibrium price and quantity?

P = _____ Q = _____

Use the graph below for questions 9-12.
(9) Assume that the graph below refers to the market for food in general. Over time, technological curiosity and capitalism have reduced the cost of producing food, increasing the supply of food.

(10) After the exogenous shock, shifting the supply curve to the right, if price does not change, there will be a(n) *(circle all that are correct)*

    (a) excess demand of 2 units
    (b) excess supply of 4 units
   (c) excess demand of 4 units
    (d) excess supply of 2 units

(11) Price will change though. After the endogenous adjustment, what is the new equilibrium price and quantity?

P = _____ Q = _____

(12) In moving from the old to the new market equilibrium, there was a … *(circle all correct answers)*

(a) shift in demand, change in quantity supplied
(b) shift in supply, change in quantity demanded
(c) shift in supply, shift in demand
(d) change in quantity demanded and supplied

Use the graph below to answer questions 13-15. Suppose the market below refers to food in general.
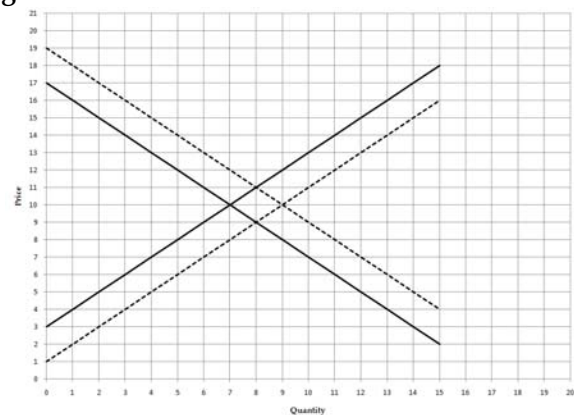
(13) What would cause the changes in the graph above, where both supply and demand increase at the same time? There are multiple possible answers. Simply contrive an answer you think is logical.

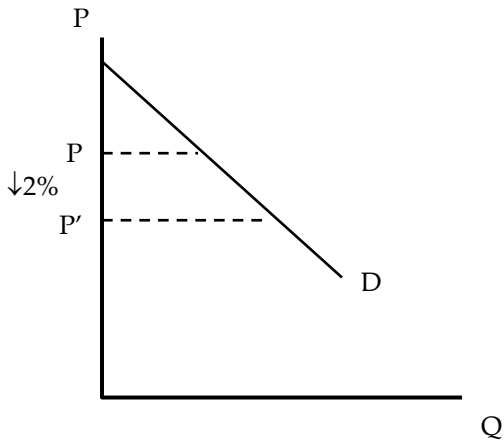(14) What is the equation for the old and new supply curves above?

Old S: P = _____

New S: P = _____

(15) What is the equation for the old and new demand curves above?

Old D: P = _____

New D: P = _____

(16) The graph below shows a demand curve and price falling from P to P', which is a 2% decrease in price. Illustrate the old and new quantity demanded as QD and QD'.
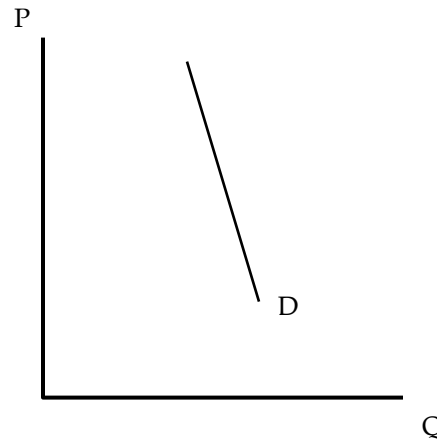

(17) Suppose the own-price elasticity of demand for this product is -0.5. Given the 2% decrease in price, what is the percent change in quantity demanded?

(18) If the own-price elasticity of demand is -0.5 in the short-run, what do we know about this elasticity in the long-run? Your answer should be a number or range of numbers.
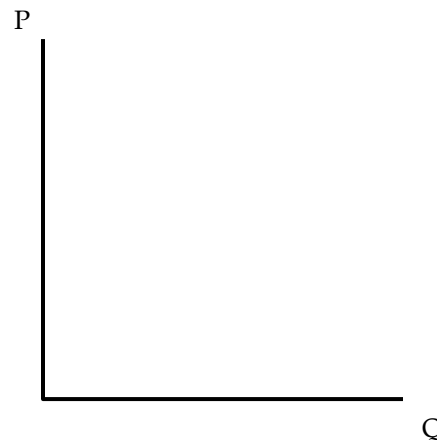
(19) Suppose I tell you the own-price elasticity of demand is 2. What is wrong with that statement?

(20) A price rise of 2% decreases quantity demanded by 4%. What is the own-price elasticity of demand?

(21) Below is demand curve. Does this demand curve look inelastic or elastic?

(22) In the graph below, draw a very elastic demand curve.

(23) In the graph below, draw a demand curve that has an elasticity less than -2.

(24) Economists estimate the own-price elasticity demand for snack foods to be -2. What does this imply about the ability of a "twinkie tax" to fight obesity?

See the elasticities in Figure 3.9 on page 81. To answer the following questions.

(26) Suppose the price of pork rises 5%. What will be the percent change in quantity demanded of pork?

(27) Suppose the price of beef rises 10%. What will be the percent change in quantity demanded of pork (assuming the pork price does not change)?

(25) From page 70 of the textbook, explain how Franklin Roosevelt tried to increase cotton prices, and why his attempt failed.
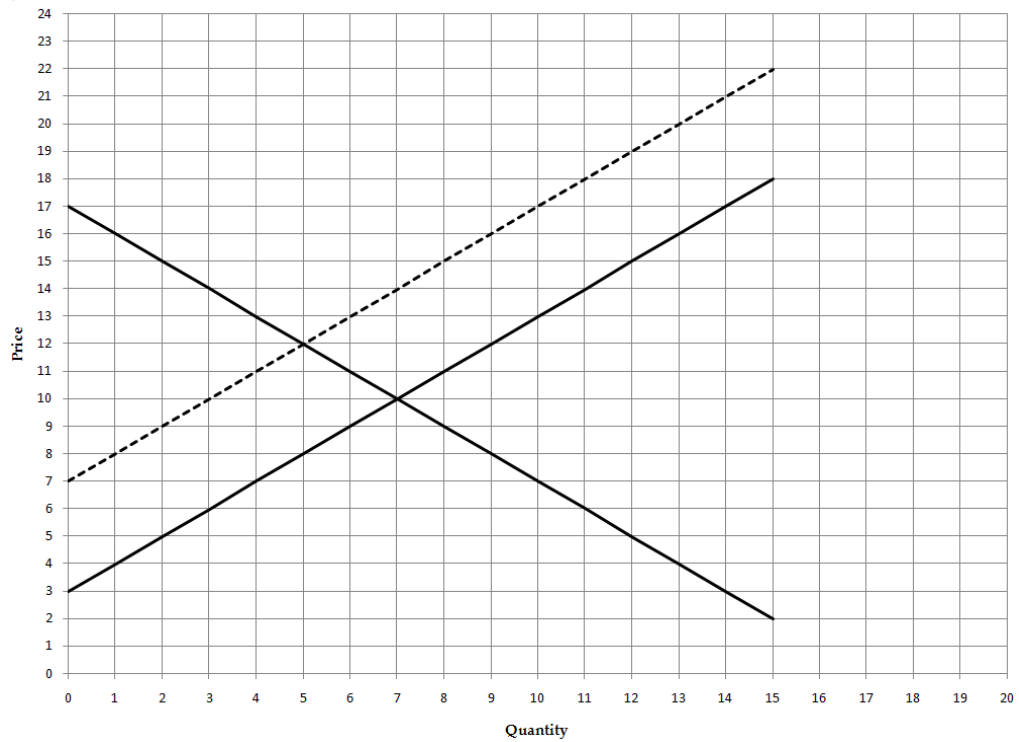
(28) Suppose the pork price rises 2% and beef prices rise 5%. What is the percent change in the quantity demanded of pork?

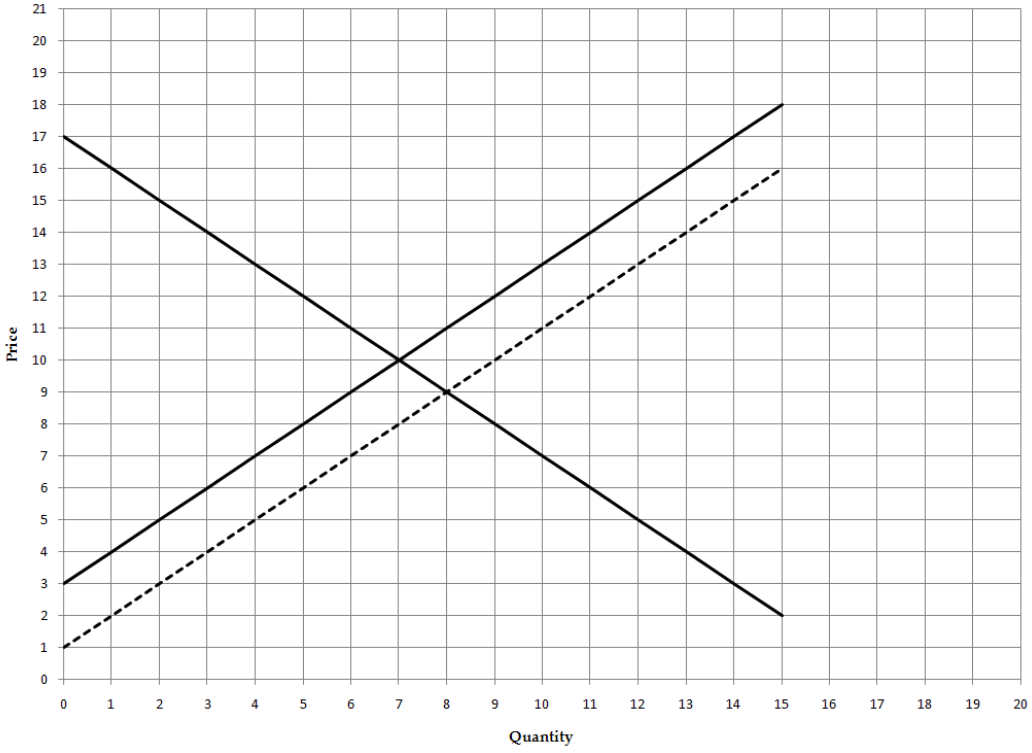**The graphs used previously are shown larger below for your convenience.**

Questions 1-4
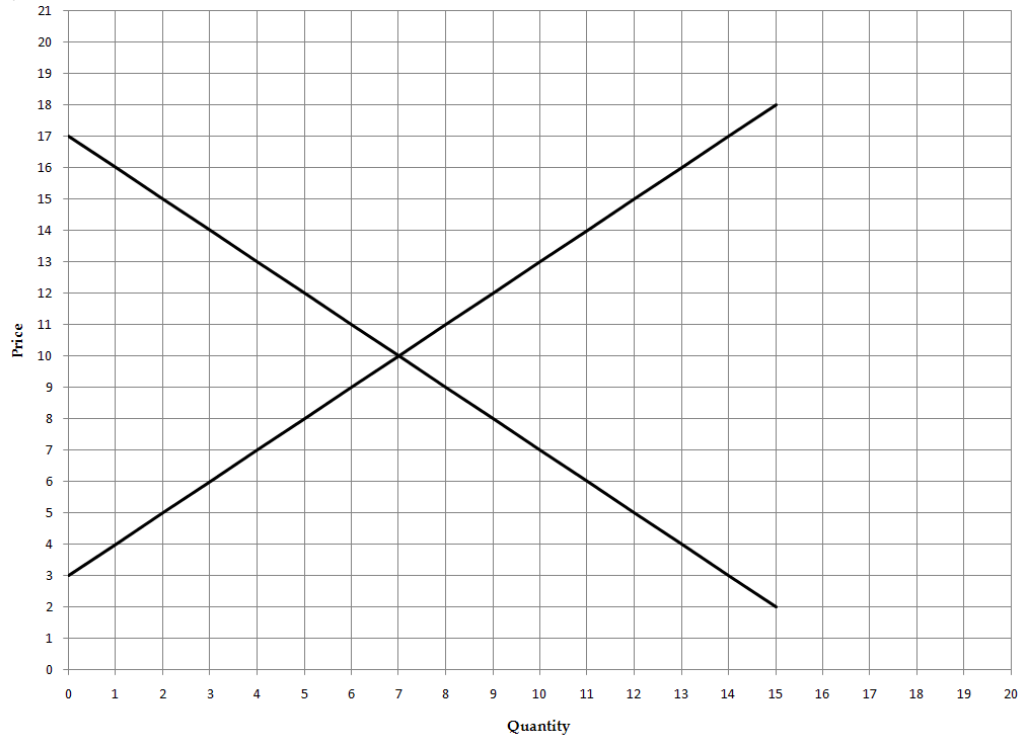
Questions 5-8

Questions 9-12

Questions 13-15