Review Questions.

Chapter 5. Elasticity.

1. The price elasticity of demand is defined as:
   a. the quantity demanded divided by the price
   b. the change in quantity demanded divided by the change in price
   c. the change in price divided by the quantity demanded
   d. the percent change in quantity demanded divided by the percent change in price
   e. the percent change in quantity demanded divide by the price

2. Prices for both beef and television sets have increased since last year. But while the revenues of cattle growers have declined, revenues of television producers have increased. Assuming that there was no shift in the demand curve, it follows that the demand curve for food at the average of initial and final prices had an elasticity coefficient which was --- in absolute value than the demand curve for television sets.
   a. greater
   b. smaller
   c. the same
   d. cannot tell from the information given.

3. The equation of a demand curve is $P = 500 - 2 \times Q_d$ (or $Q_d = 250 - 0.5 \times P$), with price in dollars. $P = 250$ and $Q_d = 125$ would be the midpoint of the curve. At that point, the elasticity of demand would be:
   a. perfectly inelastic
   b. inelastic, but not perfectly so
   c. unit elasticity
   d. elastic, but not perfectly so.
   e. perfectly elasticity

4. Given the same equation, at any higher price from $251$ to $499$, we would expect the demand curve to be:
   [same options as previous question]

5. Given the same equation, we would expect that a firm that raised their price from $100$ to $150$ would find their revenues:
   a. increasing    b. staying the same    c. decreasing    d. not enough information to tell.

6. If the supply of a product is inelastic (but not perfectly inelastic), we would expect that an increase in price would:
   a. increase the quantity of the good supplied at great deal.
   b. not change the quantity of the good supplied at all.
   c. increase the quantity of the good supplied a little.
   d. decrease the supply of the good a little
   e. increase the supply of the good a lot

7. If the costs of production per unit increase very little with a large increase in the quantity of the good supplied, the price elasticity of supply will be:
   a. very large
   b. very small
   c. zero
   d. negative
8. The elasticity of demand for a product is likely to be --- in absolute value in the long run than in the short run.
   a. greater
   b. smaller
   c. the same
   d. zero in the long run.

9. The elasticity of demand for bananas is likely to be ----- ----- the elasticity of demand for fruit.
   a. greater than
   b. smaller than
   c. the same as

10. The elasticity of demand for a product is 2. If the price increases by 10 percent, the quantity demanded will:
    a. increase by 10 percent
    b. decrease by 5 percent
    c. decrease by 10 percent
    d. decrease by 20 percent
    e. increase by 20 percent

11. If the elasticity of demand for a product is 1/2, when the price increases by 10 percent, the quantity demanded will --
    (same options as the previous question)

Chapter 6. Taxes and Subsidies

1. An excise tax increase on producers of bourbon whiskey will result in the price of bourbon;
   a. going up by the full amount of the tax
   b. going up by more than half of the full amount of the tax
   c. going up, but by less than half of the full amount of the tax
   d. depends on the elasticity of demand and on the elasticity of supply
   e. depends on the elasticity of supply only.

2. If the elasticity of demand is greater than the elasticity of supply, more of an excise tax will actually be paid by the ---, and less by the ---.
   a. producer -- consumer.
   b. consumer -- producer
   c. government -- producer
   d. consumer - government

3. An excise tax on producers will shift the ---
   a. supply curve up and to the left
   b. supply curve down and to the right
   c. demand curve up and to the right
   d. demand curve down and to the left
4. A tax on the producer of a good:
   a. reduces the profit per item received by the seller and increases the money paid per item by the buyer.
   b. increases both the profit per item and the money paid per item.
   c. increases the profit per item and reduces the money paid per item.
   d. causes the consumer's demand curve to shift to the left.
   e. causes the producer's supply curve to shift to the right.

5. The state of Washington imposes a 50 percent tax on producers of (recently legalized) marijuana.
   If we know that the demand for marijuana is less elastic than the supply of marijuana, we know that,
   compared to a no tax situation.
   a. buyers will bear the full burden of the tax, and producers' profits will increase.
   b. buyers will bear most of the burden of the tax, even though producers' profits will increase.
   c. buyers will bear most of the burden of the tax, though producers' profits will decrease also.
   d. sellers will bear most of the burden of the tax, though buyers will pay somewhat more.
   e. sellers will bear all of the burden of the tax, and buyers will pay less than they otherwise would have.

6. After an excise tax of $10 a bushel on corn, which has an elasticity of demand of 4, and an elasticity of supply of one, sellers may find that the price they receive after tax has dropped by:
   A. $3
   B. $4
   C. $5
   D. $6
For the next questions, consider the graph below:

Note that areas C and D will start from a Y-axis value of zero, though this is not clearly shown on the graph.

7. The consumer surplus resulting from this equilibrium is shown by:
   A. Area A only
   B. Area A plus area B
   C. Area B only.
   D. Area C only
   E. Area C plus area B.

8. The total variable cost of producers is represented by:
   [same options as the previous question]

9. The total revenue of producers in the situation above is given by the formula:
   (note that an asterisk * is used for multiplication)
   A. 1/2 * (500 - 340) * 80
   B. (540 - 340) * 80
   C. 340 * 80
   D. 1/2 * (340 - 100) * 80
   E. 1/2 * (500 - 100) * 80

10. Which of the formulas in the last question represents the total amount of producer surplus?
    [same options as the previous question]

11. Which of the formulas in the last question represents the total economic surplus in the economy?
    [same options as the previous question]
The graph above shows the effects of an excise tax upon the economy. Note that the graph should be read as starting from zero, though the lower value was omitted in the interest of saving space.

12. What area or areas shows the total deadweight loss resulting from the tax? 
   A. Area H only
   B. Area A only
   C. Area D plus area G
   D. Area I only.
   E. Area E plus F plus H plus I

13. What area represents producer surplus after the tax? 
   [same options as the previous question]

14. What area represents consumer surplus after the tax? 
   [same options as the previous question]

15. What area represents the producer's variable costs after the tax? 
   [same options as the previous question]

16. What area or areas shows the total tax revenue collected by the government? 
   A. Area B plus C plus D
   B. Area B plus C plus E plus F
   C. Area B plus C plus D plus G plus E plus F
   D. Area ABCDEFG
   E. Area I plus area J