Answer Key – Practice HW #3

Section I.
1. Elasticity and Total Revenue are related, as if a good is elastic in demand, total revenue will increase with a price decrease, while if the good is inelastic in demand, the TR will increase with a price increase.
2. Because in the long run you have more time to make decisions, which increases your available options, increasing your elasticity of demand
4. Income elasticity is the %change in quantity demanded for a given %change in income, while cross-price elasticity of demand is the %change in the demand for good x when there is a given %change in the price of good y.
5. Long run supply is the most elastic in demand, momentary is the least elastic in demand

Section II.
1) A 30% decline in price is required to increase consumption by 15%. Because demand is inelastic total expenditure on Brussels sprouts will decline as a result of the price cut.
2) Price elasticity of demand = 0.526. This is inelastic.
3) Because demand is not perfectly inelastic and supply is not perfectly elastic, the price will increase by less than 15 cents per pack.
4) For the short-run situation, if the price falls by 30%, Qs will fall by 9%. If price rises by 15%, Qs will rise by 4.5%
For the long-run situation, if price fall by 30%, Qs will fall by 60%. If price rises by 15%, Qs will rise by 30%.
5a. rise  
b. stay the same  
c. $35  
d. $35  
e. 3/11; 9/5  
f. 1 (unit elastic)  
g. at prices below $35.
6. A zero cross-price elasticity means that the goods are unrelated; that is, a price change in one good will have no effect on the Qd of the other good. This is believed to be true, as most people do not believe that public transportation is a good substitute for a person's own car.