EE211 Section 1 Quiz 3 Answers

Answers all following questions. Provide full explanation with graphs.

1. A good tends to have **a small price elasticity of demand** if
   a. The good is a necessity.
   b. There are many close substitutes.
   c. The market is narrowly defined.
   d. The long-run response is being measured.

2. An increase in a good's price reduces the total amount consumers spend on the good if the ______________elasticity of demand is ________________than one.
   a. Income; less
   b. Income; greater
   c. Price; less
   d. Price; greater

3. Because the demand curve for oil is __________elastic in the long run, OPEC's reduction in the supply of oil had a ____________impact on the price in the long run than it did in the short run.
   a. Less; smaller
   b. Less; larger
   c. more; smaller
   d. more; larger

4. If the price elasticity of supply is zero, the supply curve is
   a. Upward sloping
   b. horizontal
   c. vertical
   d. fairly flat at low quantities but steeper at larger quantities

5. **The price of good rises from $16 to $24**, and t**he quantity supplied raised from 90 to 110 units**. Calculated with the midpoint method, the price elasticity of supply is __________.

$$\text{The price elasticity of supply} = \frac{Percentage\ change\ in\ quantity\ supplied}{Percentage\ change\ in\ price}$$

$$Percentage\ change\ in\ quantity\ supplied = \frac{(110-90)}{\frac{(110+90)}{2}} * 100 = \frac{20}{100} * 100 = 0.2 * 100$$

$$Percentage\ change\ in\ price = \frac{(24-16)}{\frac{(24+16)}{2}} * 100 = \frac{8}{20} * 100 = 0.4 * 100$$

$$\text{The price elasticity of supply} = \frac{\textit{Percentage change in quantity supplied}}{\textit{Percentage change in price}} = 0.5$$

6. Suppose that business travelers and vactioners have the following demand for airline tickets from Chicago to Miami:

Price	Quantity Demanded (business travelers)	Quantity Demanded (vacationers)
$150	2,100 tickets	1,000 tickets
200	2,000	800
250	1,900	600
300	1,800	400

As **the price of tickets rises from $200 to $250**, what is the price elasticity of demand for

i) business travelers______________________
Use the midpoint method in your calculations

$$\text{The price elasticity of demanded} = \frac{\textit{Percentage change in quantity demanded}}{\textit{Percentage change in price}} = \frac{\frac{-100}{1950}}{\frac{50}{225}}$$

$$\approx -0.2307$$

$$\textit{Percentage change in quantity demanded} = \frac{(1900 - 2000)}{\frac{(1900 + 2000)}{2}} * 100 = \frac{-100}{1950} * 100$$

$$\textit{Percentage change in price} = \frac{(250 - 200)}{\frac{(250 + 200)}{2}} * 100 = \frac{50}{225} * 100$$

ii) vacationers______________________
Use the midpoint method in your calculations

$$\text{The price elasticity of demanded} = \frac{\textit{Percentage change in quantity demanded}}{\textit{Percentage change in price}} = \frac{\frac{-200}{700}}{\frac{50}{225}}$$

$$\approx -1.2857$$

$$\textit{Percentage change in quantity demanded} = \frac{(600-800)}{\frac{(600+800)}{2}} * 100 = \frac{-200}{700} * 100$$

$$\textit{Percentage change in price} = \frac{(250-200)}{\frac{(250+200)}{2}} * 100 = \frac{50}{225} * 100$$