Tutorial 5
Elasticity

1. Answer the following with True or False and explain your answers briefly.
   a. Elasticity along a straight line is constant since the slope and elasticity of a line is the same. (True/False)
   b. When elasticity of demand is 3, this mean that demand is elastic and that a 30% change in the price of a good will result in a 10% change in the quantity demanded. (True/False)
   c. Demand will be more elastic if there are fewer substitutes. (True/False)
   d. If government imposes a tax on purchases it will only be paid for by consumers. Suppliers will not share in paying for this tax. (True/False)
   e. What is demand elasticity and what are its determinants?

2. For each of the following values of price elasticity of demand, indicate whether it is elastic, inelastic, perfectly elastic, perfectly inelastic or unit elastic. In addition, determine what would happen to total revenue if a firm raises its price in each elasticity range identified.
   a. $\epsilon_d = 2.5$ ________________________________
   b. $\epsilon_d = 1.0$ ________________________________
   c. $\epsilon_d = \infty$ ________________________________
   d. $\epsilon_d = 0.8$ ________________________________

3. Explain the relationship between the price elasticity of demand and total revenue.

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4. Assume that the starting price of a good is $9 and at this price only 1 unit can be sold. Fill in the values for each point listed in the following table. Describe the relationships you found from your calculations?

P ($)	Q	Price Elasticity	Total Revenue	Relationship
8	2			
7	3			
6	4			
5	5			
4	6			
3	7			
2	8			

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5. Calculate the income elasticity of demand for each of the following goods. Describe briefly the income elasticity of each good.

	Quantity demanded when income is $10,000	**Quantity Demanded When income is $20,000**	**Description**
Good A	10	25	
Good B	4	5	
Good C	3	2	

6. Calculate the price elasticity of supply for each of the following combinations of price and quantity supplied. Determine whether supply is elastic, inelastic, perfectly elastic, perfectly inelastic, or unit elastic in each case.

    a. Price falls from $2.25 to $1.75; quantity supplied falls from 600 units to 400 units

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    b. Price falls from $2.25 to $1.75; quantity supplied falls from 600 units to 500 units

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    c. Price falls from $2.25 to $1.75, quantity supplied remains at 600 units

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    d. Price increases from $1.75 to $2.25; quantity supplied increases from 466.67 units to 600 units.

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