Answer on question #55970 - Economics / Economics of Enterprise

   a) **Suppose the monthly income of an individual increases from Rs 20,000 to Rs 25,000 which increases his demand for clothes from 40 units to 60 units. Calculate the income elasticity of demand.**

To calculate the income elasticity of demand using this general formula:

IEoD = (% Change in Quantity Demanded) / (% Change in Income)

   1) The formula used to calculate the percentage change in quantity demanded is:

[QDemand (NEW) - QDemand(OLD)] / QDemand (OLD) = (60-40)/40 = 0.5

   2) The formula used to calculate the percentage change in income is:

[Income (NEW) – Income (OLD)] / Income (OLD) = (25,000 – 20,000)/20,000 = 0.25

Then we get such income elasticity of demand:

IEoD = 0.5/0.25 = 2

   b) **Quantity demanded for tea has increased from 300 to 400 units with an increase in the price of the coffee powder from Rs 25 to Rs 35. Calculate the cross elasticity of demand between tea and coffee.**

To calculate cross elasticity of demand using this general formula:

CEoD=(% Change in Quantity Demanded of good B)/(% Change in Price of good A)

   1) The formula used to calculate the percentage change in quantity demanded of tea is:

[QDemand (NEW) - QDemand(OLD)] / QDemand (OLD) = (400-300)/300 = 0.33

   2) The formula used to calculate the percentage change in price of coffee is:

[Price (NEW) – Price (OLD)] / Price (OLD) = (35 – 25)/25 = 0.4

Then we get the cross elasticity of demand between tea and coffee:

CEoD = 0.33/0.4 = 0.825