

③ Arc Elasticity Method -

$$ed = \frac{\frac{\text{Change in Quantity demanded}}{\text{Original Quantity} + \text{New Quantity}}}{\frac{\text{Change in price}}{\text{Original price} + \text{New price}}}$$

$$ed = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$$

Where,

P_1 = Original price

P_2 = New price

Q_1 = Original quantity demanded

Q_2 = New quantity demanded.