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Group 227

Class 11:

1-b

2-c

3-b

4-d

Problem 1: Furniture elasticity problem

Price elasticity of demand (E_d) = -3

Price change = -10% (a 10% price decrease)

Effect on quantity demanded:

Formula:

$$\% \Delta Q = E_d \times \% \Delta P$$

$$\% \Delta Q = (-3) \times (-10\%) = 30\%$$

unset;"> Quantity demanded will increase by 30%.

Effect on total revenue:

When demand is elastic: price $\downarrow \Rightarrow$ total revenue $\uparrow$

So: Total revenue will increase.

Problem 2: Brussels sprouts elasticity problem

Given:

$$E_d = -0.5$$

Gov't wants quantity to increase by 15%

Required price change:

Formula:

$$\% \Delta Q = E_d \times \% \Delta P$$

$$15\% = (-0.5) \times \% \Delta P$$

$$\% \Delta P = 15\%$$

$$-0.5 = -30\%$$

So: Price must fall by 30%.