

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; $\rightarrow$ Quantity demanded will increase by 30%

Effect on total revenue:

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

So $\Rightarrow$ Total revenue will increase

problem 2: Brussels sprouts elasticity problem

Given $\Rightarrow E_d = -0.5$ Gov't wants quantity to increase by

15% required price change:

Formula: $\% \Delta Q = Ed \times \% \Delta P$

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

$$\% \Delta P = 15\% \times -0.5 \Rightarrow -30\%$$

so price must fall by 30%