



% change in Price

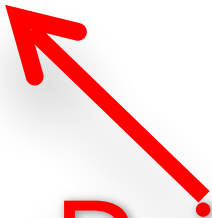
% change in  $Q_d$

Size of the change in  $Q_d$

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Size of the change in Price

$e_p d =$



Price

# Demand





Formula to calculate the elasticity

Formula to calculate the price elasticity of  
demand





$$\left( \frac{\text{Change in } Q_d}{\text{Average } Q_d} \right)$$



$$\left( \frac{\text{Change in Price}}{\text{Average Price}} \right)$$

$$e_{p^d} = \frac{\% \Delta Q_d}{\% \Delta \text{Price}}$$





Formula to calculate the **price** elasticity of  
**demand**

**Demand**  **Price** 

$$e_p^d = \frac{\text{Size of the change in } Q^d}{\text{Size of the change in Price}} = \frac{\left( \frac{\text{Change in } Q^d}{\text{Average } Q^d} \right)}{\left( \frac{\text{Change in Price}}{\text{Average Price}} \right)}$$

**% change in  $Q^d$**   
**% change in Price**

$\Delta$  means "change in"

$$e_p^d = \frac{\% \Delta Q^d}{\% \Delta \text{Price}}$$

To measure a consumer's sensitivity to price changes