

Example: The price elasticity of demand = -5

If the price drops 15%, calculate the resulting change in Q^d



$$\% \Delta Q^d = +75$$







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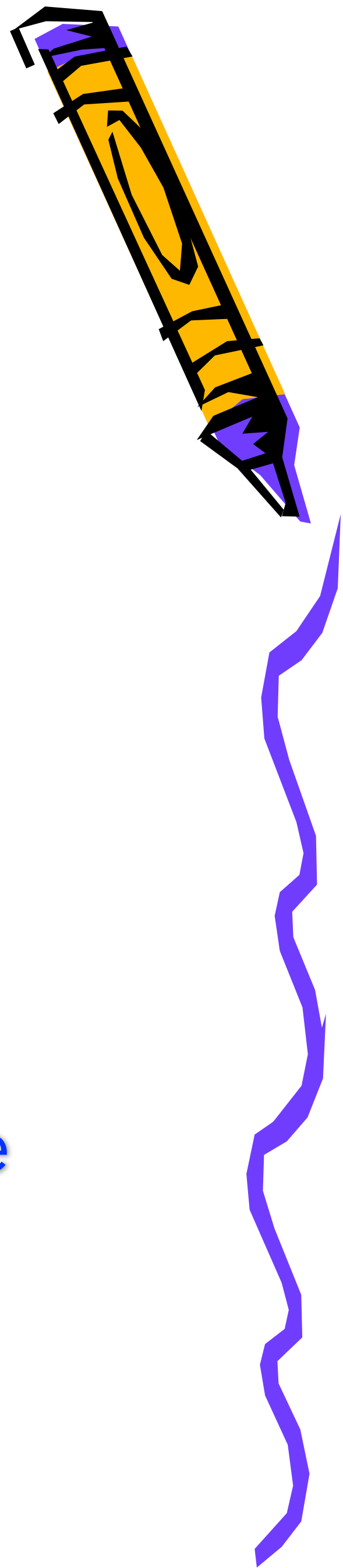
$$e_{pd} = \frac{\% \Delta Q_d}{\% \Delta P}$$

$$\% \Delta Q^d = e_p^d \times \% \Delta P$$

$$\% \Delta Q^d = -5x - 15$$



Rearrange


$$e_p^d = \frac{\% \Delta Q^d}{\% \Delta P} \xrightarrow{\text{Rearrange}} \% \Delta Q^d = e_p^d \times \% \Delta P$$

Example: The price elasticity of demand = -5

If the price drops 15%, calculate the resulting change in Q^d

?

$$\% \Delta Q^d = -5 \times -15$$

$$\% \Delta Q^d = +75$$

If the price drops by 15%, the
quantity demanded increase
by 75%

If we calculate the elasticity at all points along a demand line:

Price	Q demanded	Elasticity
140	0	
130	5	
120	10	
110	15	
100	20	
90	25	
80	30	
70	35	
60	40	
50	45	
40	50	
30	55	
20	60	
10	65	
0	70	