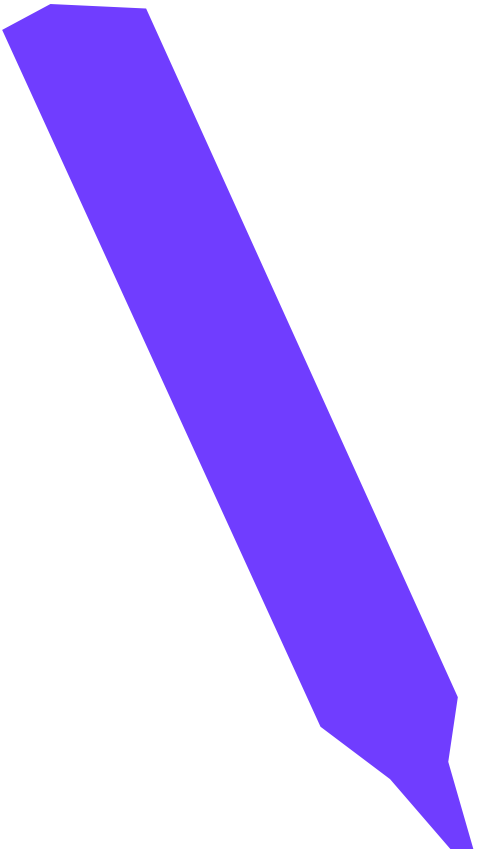
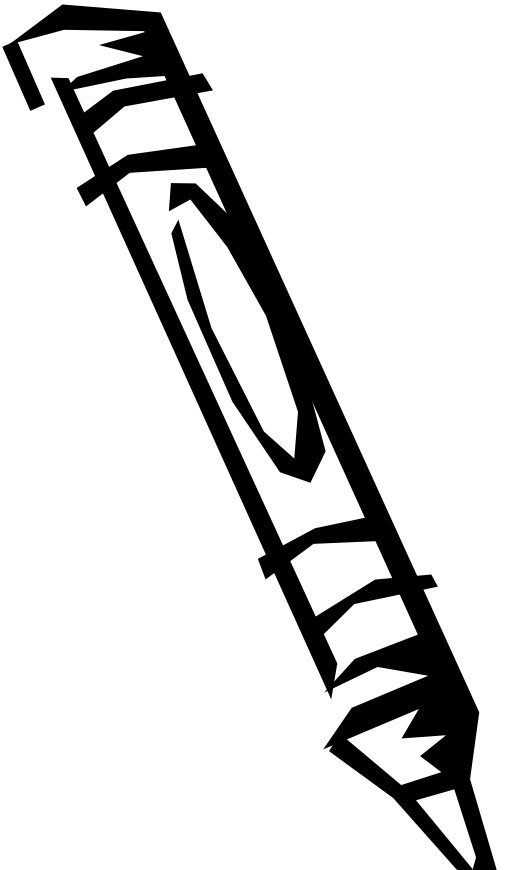
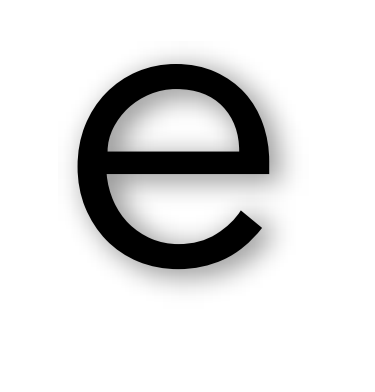


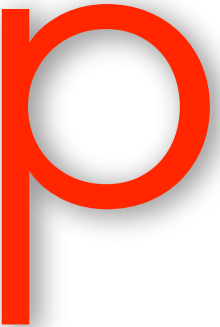


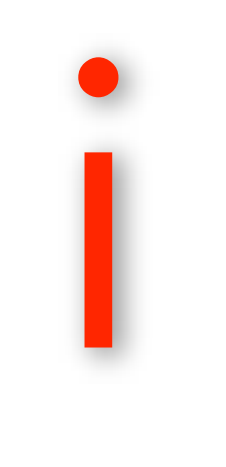
Example: The price elasticity of demand = -5

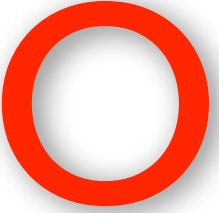
If the price drops 15%, calculate the resulting change in Q^d

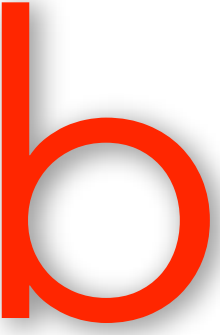
$$\%\Delta Q^d = +75$$



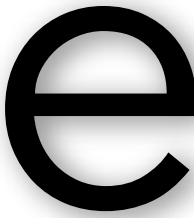


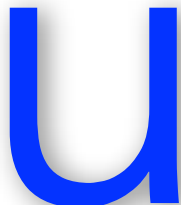


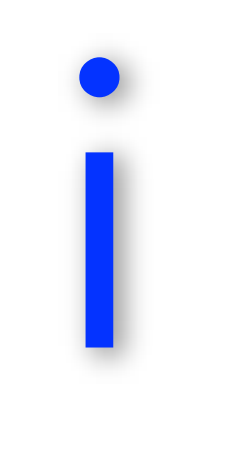


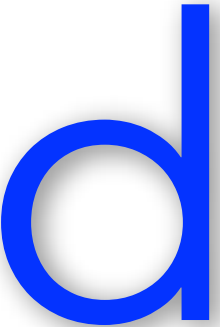


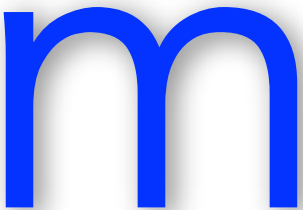

y



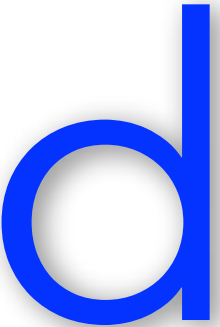


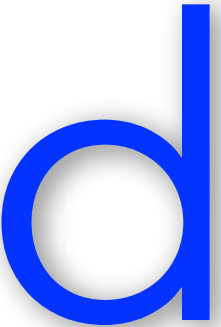


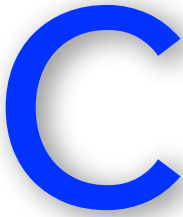


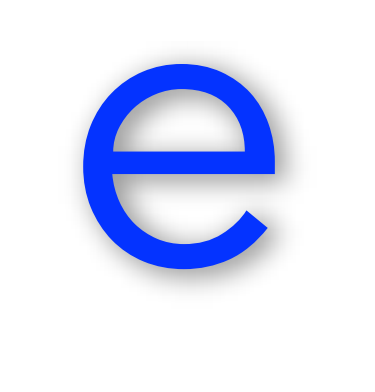



a










a

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

$$\%\Delta Q^{d} = e_{p}{}^{d} \times \%\Delta P$$

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


Rearrange

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

$$\%\Delta Q^d \overset{?}{=} -5 \times -15$$

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

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	