

**Answer on Question #79598 , Economics / Macroeconomics**

i. Own price elasticity of demand =  $\Delta \ln Q_x / \Delta \ln P_x$ .

$$E = -0.5$$

Demand is inelastic because the absolute value of the elasticity is  $< 1$ .

ii. Cross price elasticity  $E_c = \Delta \ln Q_x / \Delta \ln P_y$ .

$$E_c = -2.5.$$

the two goods in question are substitutes. This is because a positive relation between the price of one and demand of the other proves the same. As the price of one increases, the other automatically becomes cheaper to buy and hence the demand increases.

iii. Income elasticity  $E_m = \Delta \ln Q_x / \Delta \ln M$ .

$$E_m = 1.$$

Positive sign shows that the good X is a normal good.

iv. Advertising elasticity  $E_a = \Delta \ln Q_x / \Delta \ln A$ .

$$E_a = 2.$$

Notice that the values of M, A or prices don't matter. What matters is the coefficients of the logarithm of these values, which is the partial derivatives.

Answer provided by <https://www.AssignmentExpert.com>

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<https://www.investopedia.com/terms/d/demand-elasticity.asp>

<https://financetrain.com/demand-function-and-demand-curve/>