

*Answer on Question #80702, Economics / Macroeconomics*

To calculate elasticity, we will use the average percentage change in both quantity and price. This is called the **midpoint method for elasticity** and is represented by the following equations:

$$Q_1 = 1000, Q_2 = 850;$$

$$P_1 = 30, P_2 = 32.$$

*Percent change in quantity:*

$$\frac{Q_2 - Q_1}{(Q_2 + Q_1) \div 2} \times 100$$
$$\frac{850 - 1000}{(850 + 1000) \div 2} \times 100 = 16,21\% *$$

*Percent change in price:*

$$\frac{P_2 - P_1}{(P_2 + P_1) \div 2} \times 100$$
$$\frac{32 - 30}{(32 + 30) \div 2} \times 100 = 6,45\%$$

$$\text{Price Elasticity of Demand} = \frac{16,21}{6,45} = 2,51$$

*Answer is [4] = 2,51.*

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

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\* The minus is usually taken to be omitted and evaluated modulo. So mathematically, we take the absolute value of the result.