

$$1) \partial Q = \frac{\Delta Q}{Q}; \partial P = \frac{\Delta P}{P}$$

$$\partial Q = \frac{(3-1)}{1} = 2; \partial P = \frac{(2.5-5)}{5} = -0.5$$

$$E_P^D = \frac{\partial Q}{\partial P} = \frac{2}{-0.5} = -4$$

When we analyze price elasticity we're concerned with their absolute value, so we ignore the negative value. We conclude that the price elasticity of demand when the price decreases from \$5 to \$2.5 is 4.

If $E_P^D > 1$ then Demand is Price Elastic (Demand is sensitive to price changes). It means: when the price of one six-pack of bottles goes down, consumers will buy a great deal more than price change.

$$2) \partial Q = \frac{(250-550)}{250} = -1.2; \partial P = \frac{(8-4)}{8} = 0.5$$

$$E_P^D = \frac{\partial Q}{\partial P} = \frac{-1.2}{0.5} = -2.4$$

When we analyze price elasticity we're concerned with their absolute value, so we ignore the negative value. We conclude that the price elasticity of demand when the demand increases from 250 to 500 Dorito Chips is 2.4.

If $E_P^D > 1$ then Demand is Price Elastic (Demand is sensitive to price changes). It means: when the sold number of Dorito Chips are growing than the price is going down in the free market.