

ASSIGNMENT #1

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Objective

Suppose the demand function of this industry is given as follows, where 'P' is the price in dollars and 'Qd' is quantity demanded:

$$Q_d = 75 - 20P + 2P^2$$

Question #1

Calculate price elasticity of demand when price is 4 dollars. Also, interpret the result.

Solution

By putting the value of price in the equation given below, we get:

$$Q_d = 75 - 20P + 2P^2$$

$$Q_d = 75 - 20(4) + 2(4)^2$$

$$Q_d = 75 - 80 + 32$$

$$Q_d = 27$$

Answer

$$Q_d = 27$$

Question #2

Calculate total revenue of the industry by using above information in part (a).

Solution

Now, multiplying the derived quantity 'Qd' by price 'P', where Total Revenue = π

$$\pi = P \times Q$$

$$\pi = 4 \times 27$$

$$\pi = 108$$

Answer

$$\pi = 108$$

Question #3

If price elasticity of demand of ViraBloc becomes $-15/14$ then how will this affect the price of ViraBloc?

Answer

We know that if the answer lies in the center it's called unitary. If the answer is to be in a positive direction, the good is normal and elasticity is positive. Whereas, if the answer is less than one mean in minus or negative direction, the good is inferior and elasticity is negative. So the elasticity analysis of the ViraBloc is in elastic and in elastics, increase the price as much as you like, the quantity demanded almost remains the same.