
# *UNIVERSITY OF THE PEOPLE*

## *ECON 1580-01-INTRODUCTION TO ECONOMICS-AY2024-T3*

### *WRITTEN ASSIGNMENT UNIT 2*

*INSTRUCTOR: CHRISTOPHER STUTTS*

1. Compute the price elasticity of demand between these two points.

To compute the price elasticity of demand between the two given points:

Original price: $20

Original quantity: 400

New price: $18

New quantity: 450

“The price elasticity of demand is calculated as the percentage change in quantity divided by the percentage change in price” (Lynham, n.d.).

Percentage change in quantity = (New quantity - original quantity) / original quantity x 100

= (450 - 400) / 400 x 100 = 12.5%

Percentage change in price = (New price - old price) / old price x 100

= (18 - 20) / 20 x 100 = -10%

***Price elasticity of demand = 12.5% / -10% = -1.25***

2. Would you expect total revenues to rise or fall? Explain.

***When demand is elastic (elasticity is greater than 1 in absolute value), total revenue moves in the opposite direction of price. Since here elasticity = -1.25, demand is elastic. Therefore, I would expect total revenue to rise as prices fall from $20 to $18.***

3. Suppose you have reduced the average price of a meal to $18 and are considering a further reduction to $16. Another survey shows that the quantity demanded of meals will increase from 450 to 500 per day. Compute the price elasticity of demand between these two points.

With the price falling from $18 to $16:

Original price: $18

Original quantity: 450

New price: $16

New quantity: 500

Percentage change in quantity = (500 - 450) / 450 x 100 = 11.1%

Percentage change in price = (16 - 18) / 18 x 100 = -11.1%

***Price elasticity of demand = 11.1% / -11.1% = -1***

4. Would you expect total revenue to rise or fall as a result of this second price reduction? Explain.

***Demand is still elastic (elasticity is -1), so I would expect total revenue to rise again with the second price drop from $18 to $16.***

5. Compute total revenue at the three meal prices. Do these totals confirm your answers in (b) and (d) above?

Total revenues: At $20 price: 400 x $20 = $8,000

At $18 price: 450 x $18 = $8,100

At $16 price: 500 x $16 = $8,000

***So total revenue rose from $8,000 to $8,100 when price dropped from $20 to $18, confirming answer (b).***

***Total revenue then remained the same at $8,000 when price dropped again from $18 to $16. This does not confirm answer (d), where I expected total revenue to rise again.***

Reference:

Lynham, J. (n.d.). 5.1 Price elasticity of demand and price elasticity of supply. Pressbooks. https://pressbooks.oer.hawaii.edu/principlesofmicroeconomics/chapter/5-1-price-elasticity-of-demand-and-price-elasticity-of-supply/