Chapter 2.6 Review Questions: 2, 4, 6, 7, 9, 10, 12

Problem 2

Question: What is the difference between the snob effect and the conspicuous effect?

Answer:

Both the snob & conspicuous effect fall under nonfunction demand due to interdependent utility functions.

The snob effect is when someone purchases items with low demand in order to be different from the crowd. "The demand curve with a snob effect will be less elastic than for the functional demand curve."

The conspicuous effect is where people purchase a good to impress others. The high price of this type of good adds to the prestige of the good. Because of this, the conspicuous effect could theoretically produce a positively-sloped demand curve.

Problem 4

Question: If income falls and demand for a good decreases, is the good normal, inferior, or income-neutral?

Answer:

If income falls and the demand for the good decreases, the good is normal.

Problem 6

Question: A firm sells two brands of a good (x and y).

They are considering raising the price of brand y.

The cross price elasticity is -.5.

a) Interpret the value of the cross-price elasticity

$$Elasticity_{xy} = \frac{\partial Q_x}{\partial p_y} * \frac{p_y}{Q_x} = \frac{\%\Delta Q_x}{\%\Delta P_y} = -.5$$

Answer:

For every 1% decrease in price of good "y", there was a resulting .5% increase in quantity demanded of good "x".

b) Are the two brands substitues, complements, or unrelated?

Answer:

Cross-price elasticity is positive for substitute goods, negative for complements, and zero for unrelated goods. Our value is negative, so "x" and "y" are complements.

Problem 7

Question: Consider a market with the following demand function:

$P = a - 2bQ$ where a and b are positive constants

a) Write down TR and MR

Answer:

Total Revenue:

$$TR = P(Q) * Q$$

Total Revenue:

$$TR = (a - 2bQ) * Q$$

Marginal Revenue:

$$MR = P'(Q) * Q + P(Q)$$

Marginal Revenue:

$$MR = (-2bQ) + (a - 2bQ)$$

Marginal Revenue:

$$MR = -4bQ + a$$

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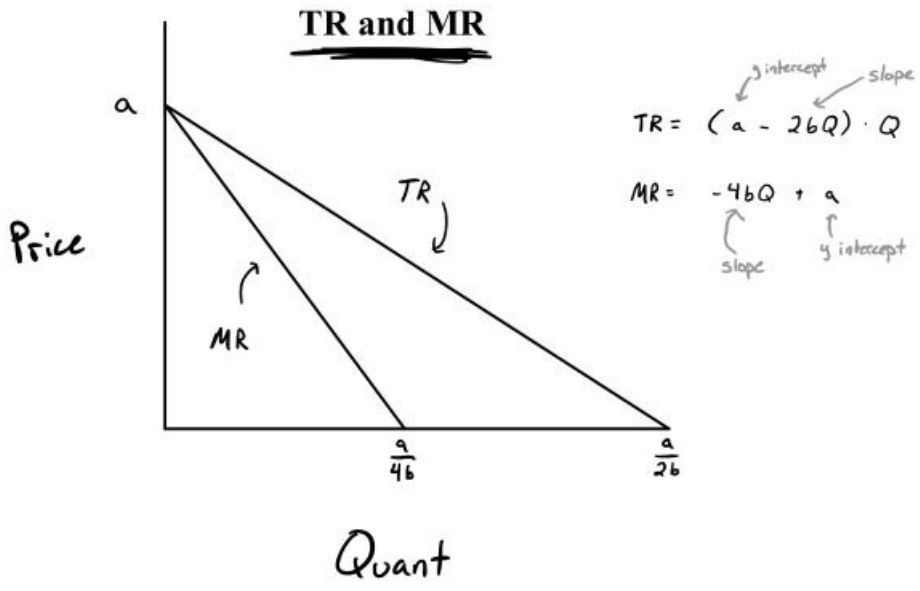
b) Graph the demand curve and the MR curve

Answer:



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c) What is MR when price elasticity of demand = 1?

Answer:

If elasticity of demand = 1, then MR = 0.

$$\varepsilon = \frac{p}{p - MR}$$

$$\varepsilon = 1 \quad -> \quad 1 = \frac{p}{p - MR} \quad -> \quad 0 = MR$$

$$\varepsilon = 2 \quad -> \quad 1 = \frac{p}{p - MR} \quad -> \quad 5P = MR$$

$\varepsilon = 2$ $\quad$ $.5P = MR$

$\varepsilon = 3 \quad -> \quad 1 = \frac{p}{p-MR} \quad -> \quad .66P = MR$

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d) What is the maximum TR? What is the price elasticity of demand at this maximized TR?

Answer:

We will find maximum TR where MR = 0.

$MR = -4bQ + a$

$0 = -4bQ + a$

$4bQ = a$

$Q = \frac{a}{4b}$ TR maximized when $Quantity = \frac{Y intercept}{slope}$

This is the point where MR = 0, so the price elasticity of demand = 1.

Problem 9

Fill in the appropriate numbers in the table below:

Q	Total cost	Average cost	Marginal cost
0	70	-	-
1	200	200	130
2	320	-	-
3	-	153.3	139.9

Answer:

Q	Total cost	Average cost	Marginal cost
0	70	-	-
1	200	200	130
2	320	**160**	**120**
3	**460**	153.3	139.9

Problem 10

Question: A technological change improves the efficiency of the production of a good.

How do you expect this will impact a firm's long run average and marginal costs?

Answer:

The firm will see a decrease in average costs due to improvements in efficiency. They will be able to produce the same amount of units, but with fewer inputs (capital and labor).

Marginal costs will also fall as it becomes cheaper to produce one more unit. The firm will be able to take advantage of economies of scale further will reach their minimum efficient scale (MES) at a larger quantity.

Problem 12

Question: Every day, a clothing design firm needs workers who sew. It could (a) Contract out these services or (b) Keep them in-house.

Compare the relative firm vs market costs for this problem for

Firm a) Sell low-cost dresses

Firm b) Sell high-cost, designer dresses

Which firm is more likely to contract out and which is more likely to keep in-house?

Answer:

The firm who sells low cost dresses would be more likely to contract our their sewing. This is because the design firm won't have the same economies of scale to continue to produce dresses.

The firm who sells high cost designer dresses, on the other hand, would be more likely to keep their sewing in house. The quantity demanded will be relatively small compared to the design firm who sells low cost dresses. These dresses will be more customized as well so it will be cheaper / easier to do the work in-house.