AP Microeconomics Webinar Topic 1.6 - Marginal Analysis and Consumer Choice

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Agenda

- *Warm Up*
- *Content Delivery - Marginal Analysis and Consumer Choice*
- *Practice - Student Activity 1.7*
- *Exit Ticket*
- *Wrap Up & Evaluation*

Learning Targets

1. Explain the difference between a consumer's **total utility** and **marginal utility** and define **diminishing marginal utility**
2. Understand how to maximize total utility from a limited budget.

If you were at a party with free pizza, how many slices would you eat? How many slices would you eat if the host declared you would have to pay $2.00 for each slice? Why would you behave differently when the pizza is not free?

Students, write your response!

Why do people demand goods and services?

- Satisfaction
- Economists terms this satisfaction utility.

Defining Total and Marginal Utility

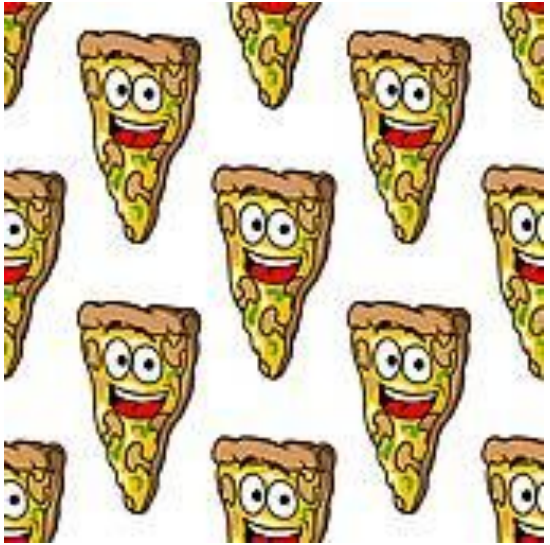
- Total Utility (TU) –total satisfaction obtained when consuming a good.
- Marginal Utility (MU) - the change in total utility when consumption of a good changes by one unit.
  - MU = ΔTU / Δ Q consumed of a good

Overarching Themes

- Consumers are utility maximizers.
- With limited income, consumers will try to maximize total utility (TU)
- As consumers buy more of the same good, their marginal utility will diminish.
- Due to ***diminishing marginal utility***, a consumer will only buy more of a good if the price is reduced.

Law of Diminishing Marginal Utility

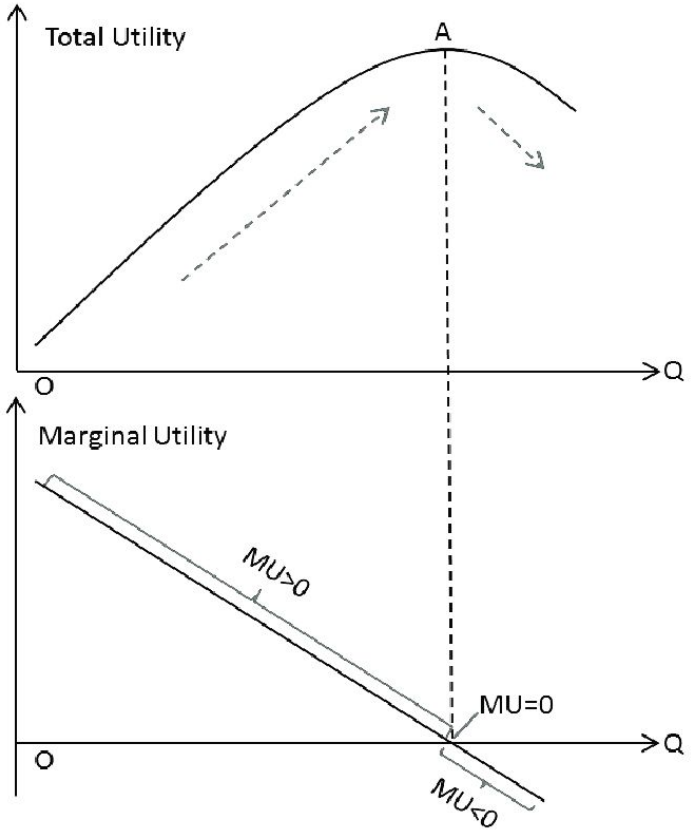
- Law of Diminishing Marginal Utility - eventually, a point is reached where the additional satisfaction obtained by consuming additional units of a good starts to decline, ceteris paribus.



Law of Diminishing Marginal Utility

- Example
  - If I'm really hungry, I get a lot of satisfaction from first slice of pizza.
  - If I keep eating pizza, the additional satisfaction from the 8th slice would be much less than that of the first slice.

- Marginal utility is the change in total utility when an extra unit is consumed.
- If the marginal utility from the extra unit is positive then total utility increases.
- If the marginal utility from the extra unit is zero, then total utility does not change.
- If the marginal utility from the extra unit is negative, then total utility decreases.



(1) Hamburgers consumed per meal	(2) Total utility, utils	(3) Marginal utility, utils
0	0	
1	10	10
2	18	8
3	24	6
4	28	4
5	30	2
6	30	0
7	28	-2

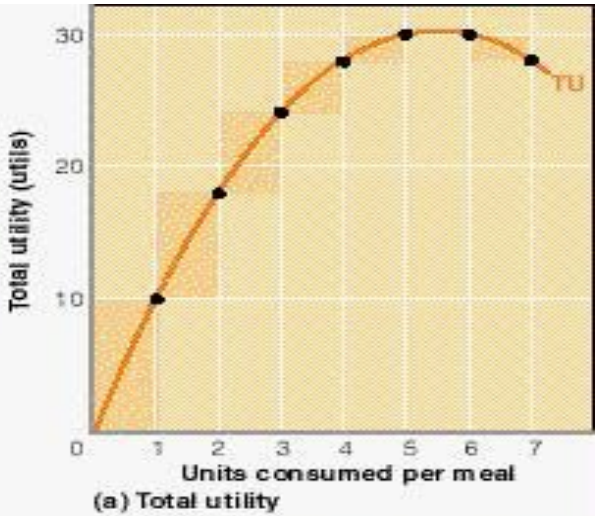


Table 1-7.1

MARGINAL UTILITY OF VIDEO GAMES AND JEANS

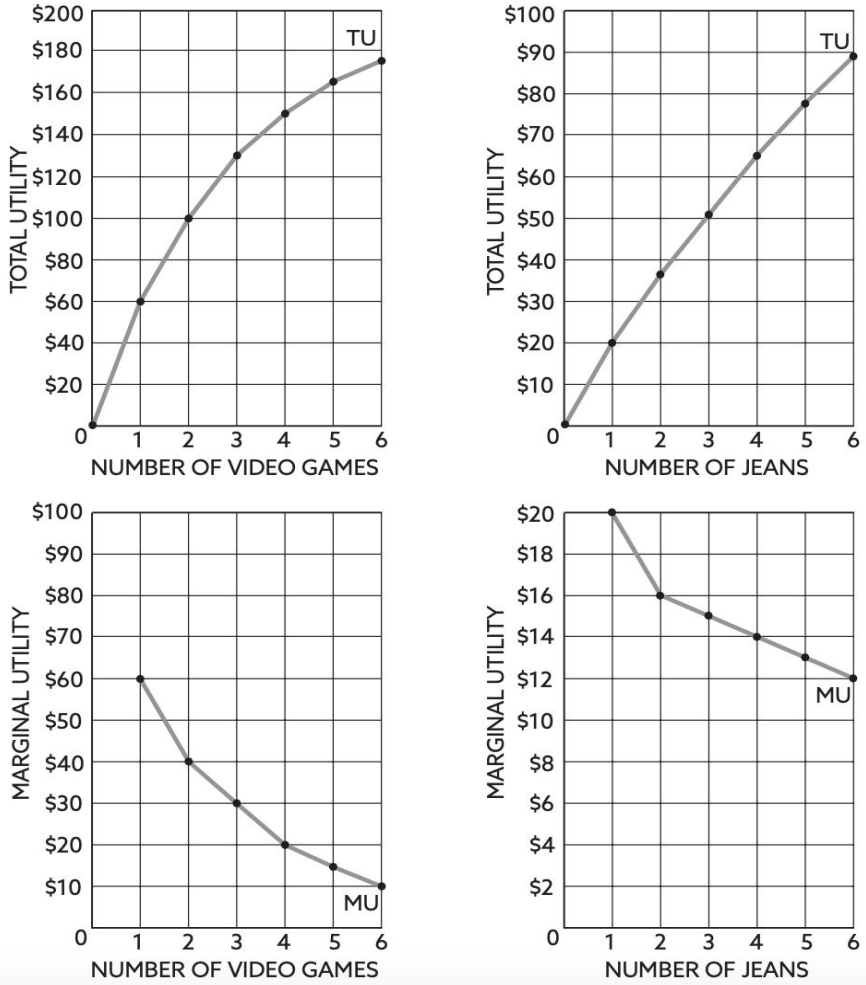
Number of video games	Total utility	Marginal utility	Number of Jeans	Total utility	Marginal utility
0	$0		0	$0	
1	$60	$60	1	$20	$20
2	$100	$40	2	$36	***$16***
3	$130	***$30***	3	$51	***$15***
4	$150	***$20***	4	$65	***$14***
5	$165	***$15***	5	$78	***$13***
6	$175	***$10***	6	$90	***$12***

- Why does Dolores's MU decrease for each good?
- Does this relate to price of the good?

Students, write your response!

Figure 1-7.1

TOTAL AND MARGINAL UTILITY OF VIDEO GAMES AND JEANS



- Notice that although MU is declining for video games and jeans, the TU is still rising!

Utility Maximization

- *To receive the greatest **total utility** from a given income, a consumer should allocate income between two products so that the **marginal utility per dollar** is the same for each product.*
  - *Also called **consumer equilibrium** because the consumer has no incentive to change the allocation of income unless the price of a product changes.*

- So how should Dolores allocate her budget between video games and jeans?

Use Marginal Utility per Dollar (Consumer Equilibrium)

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y}.$$

Assume the price of both goods is $30. With a $150 budget, how many video games and jeans will Dolores buy?

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$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y}.$$

Callie has an income of $55, the price of a unit of gasoline is $5, and the price of a unit of food is $10. Complete the table.

Table 1-7.2
CALLIE BUYS GASOLINE AND FOOD

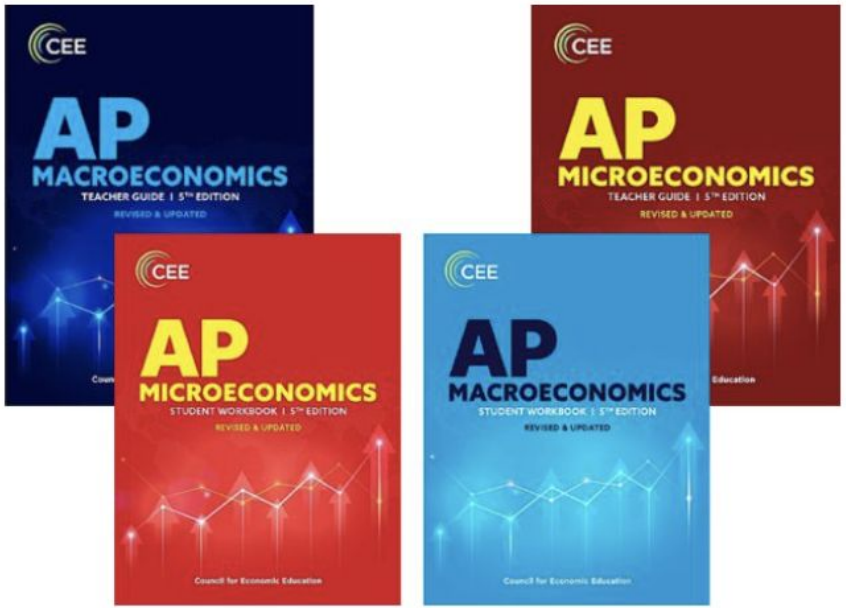
Gasoline (G)	MU_G	MU_G/P_G	Food (F)	MU_F	MU_F/P_F
1 unit	+$60		1 unit	+$120	
2 units	+$30		2 units	+$80	+8.0
3 units	+$15	+3.0	3 units	+$60	
4 units	+$5		4 units	+$30	+3.0
5 units	+$3	+0.6	5 units	+$10	
6 units	+$1		6 units	+$5	+0.5

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y}.$$

1. How much income would Callie have to spend to purchase the combination of 1 G and 5 F?
2. Will the combination of 1 G and 5 F maximize Callie's total utility? Why?
3. What combination of gas and food will maximize Callie's total utility?
   a. What is the total utility Callie will receive from that combination?

Wrap Up - Kahoot

Content Delivered Thanks to….



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