

# MATH PRACTICE FOR ECONOMICS ACTIVITY 6

## RECOGNIZING FACTORS THAT AFFECT DEMAND

*The buying decisions that you, your friends, and your family make on a daily basis often follow the same patterns as predicted by economic principles.*

### THE LAW OF DIMINISHING MARGINAL UTILITY

Things that you like, use, or think you might use give you satisfaction. Your satisfaction rises with each unit you buy, but the amount of additional satisfaction, or marginal utility, diminishes with each additional unit. For example:

Suppose you normally buy five sandwiches for \$3.25 each during a school week. If you had unlimited money, how many would you buy? 10, 20, or 30? **(1)** \_\_\_\_\_. If you bought three and ate them at one sitting, which would you enjoy the most: the first, the second, or the third? **(2)** \_\_\_\_\_. What effect would a drop of price have in your enjoyment of the third sandwich? **(3)** \_\_\_\_\_

### REAL INCOME EFFECT

Your income limits the amount of money you can spend. If the price of an item rises while your income stays the same, you cannot keep buying it in the same quantity.

Suppose you have \$25 a week to spend on lunches. You usually buy five sandwiches for \$3.25 each and five beverages at \$1.25 each. What is the total cost of your sandwiches for a week? **(4)** \_\_\_\_\_. For your beverages? **(5)** \_\_\_\_\_. What is left of your \$25 at the end of a week? **(6)** \_\_\_\_\_

If the beverage price goes up to \$1.50, how much do the five drinks cost? **(7)** \_\_\_\_\_. What is left of your \$25 at the end of a week? **(8)** \_\_\_\_\_. Did your real income increase or decrease? **(9)** \_\_\_\_\_

### SUBSTITUTION EFFECT

Sometimes two different items with the same price satisfy basically the same need. If the price of one drops or rises, you will probably substitute the lower priced item for the higher priced one.

**(10)** Suppose you enjoy having either a sandwich or a pizza for lunch. Complete the tables below to show how your lunches for a week might change if the price of one rises.

Food	Original Cost	Purchases per week	Amount spent	New price	Purchases now per week	Amount spent
Sandwich	\$3.25	5		\$3.75	0	
Pizza	\$3.50	0		\$3.50	5	

By what percent did the cost of a sandwich increase? (Percent increase = amount of increase divided by the original price) **(11)** \_\_\_\_\_. You decide to switch to having just pizza for lunch. By what percent did the original cost of your five sandwich lunches (including five beverages at \$1.25 each) increase? (Percent increase = total increase divided by initial cost of lunches) **(12)** \_\_\_\_\_