

## Revenue and Its Applications

### Total Revenue and Marginal Revenue

- **Marginal revenue** is defined as the revenue from selling an additional unit of a good—that is, the change in total revenue that results from selling an additional unit of output.

### Firms Have to Answer Questions

- How much should we produce?
- What price should we charge?

## **How Much Will a Firm Produce?**

- A firm should continue to produce as long as marginal revenue is greater than marginal cost. In fact, some economists think that a firm should continue to produce additional units until marginal revenue is equal to marginal cost.

## **What Every Firm Wants: To Maximize Profit**

- Maximizing profit is the same as getting the largest possible difference between total revenue and total cost.

# Profit, Loss, and the Law of Diminishing Marginal Returns

- A firm computes its profits and losses using three formulas. (See Transparency 7-4.)
  - Total cost = Fixed cost + Variable cost.
  - Total revenue = Price x Quantity of good sold.
  - Profit (or loss) = Total revenue - Total cost.

- The **law of diminishing returns** states that if additional units of one resource are added to another resource in fixed supply, eventually the additional output will decrease. (Again, see Transparency 7-4.)
- Suppose a firm wants to add workers. As long as the additional output produced by the additional workers multiplied by the selling price of the good is less than the wage paid to the workers, it is a good idea to hire the additional employees.

# TRANSPARENCY 7-4: Profit, Loss, and the Law of Diminishing Marginal Returns

## Profit and loss

Total cost = Fixed cost + Variable cost

Total revenue = Price x Quantity of good sold

Profit (or loss) = Total revenue – Total cost

## The law of diminishing marginal returns

(1) Workers	(2) Quantity of output produced each day	(3) Additional output produced (each day) as a result of hiring an additional worker	
0	0 units	0 units	
1	5	5 (5 – 0 = 5)	
2	11	6 (11 – 5 = 6)	Diminishing returns set in with the addition of the fourth worker.
3	18	7 (18 – 11 = 7)	
4	23	5 (23 – 18 = 5) ←	
5	26	3 (26 – 23 = 3)	