

CONCEPT: THE PRODUCTION FUNCTION AND MARGINAL REVENUE PRODUCT

- **Factors of Production (Resources)** are classified into the following categories:

- ☐ **Land** – all _____ used in the production process
- ☐ **Labor** – physical and mental contributions of the people in the production process
- ☐ **Physical Capital** – factories and equipment used in the production process
- ☐ **Human Capital** – productivity of the labor force
- ☐ **Entrepreneurship** – the resource that organizes, manages, and assembles the other factors of production

- The **production function** relates the amount of inputs (i.e. workers) to the amount of output (i.e. quantity)

- ☐ **Marginal Product of Labor** – increase in output from adding one more worker



- **Value of the Marginal Product of Labor** = _____



EXAMPLE: A local pizza shop leases two pizza ovens for a total daily cost of \$100. The pizza company is deciding how many employees to hire at a wage of \$80 per day. Assume the cost of ingredients is negligible. Each pizza sells for \$5.

Number of Pizza Ovens	Number of Workers	Total Quantity of Pizzas	Marginal Product of Labor	Marginal Revenue Product	Wage	Marginal Profit
2	0	0				
2	1	30				
2	2	80				
2	3	150				
2	4	180				
2	5	190				

- ☐ A competitive, profit-maximizing firm will hire workers up to the point where _____
- ☐ The _____ is the firm's _____ for labor