

**Intermediate Microeconomics (Fall 2023)**  
**Lecture 8**  
**Revenue and Profit**

**Part I**

**Revenue** – The \_\_\_\_\_ a firm \_\_\_\_\_  
for \_\_\_\_\_ its \_\_\_\_\_.

- **Total Revenue**

TR = \_\_\_\_\_ = \_\_\_\_\_

- **Average Revenue**

AR = \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

- **Marginal Revenue**

MR = \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

**Part II****Profit**

- **Firms seek to** \_\_\_\_\_ (\_\_\_\_\_).
- **Accounting Profit vs. Economic Profit**

- **Calculate Profit**

- **Profit Maximization**

- **Short-Run Profit Maximization**

- **Setting up**

- ❖ \_\_\_\_\_: The production function for the firm
    - ❖ \_\_\_\_\_: The \_\_\_\_\_ choice of Input 1
    - ❖ \_\_\_\_\_: The level of Input 2 that is \_\_\_\_\_
    - ❖ \_\_\_\_\_: The price of \_\_\_\_\_
    - ❖ \_\_\_\_\_, \_\_\_\_\_: The prices of Input 1 and Input 2

- **Approach**

*Example 1: Determine the optimal level of input*

- Value of Marginal Product of Labor ( $VMP_L$ )

- Choose the Optimal Level of Labor ( $L^*$ )

*Exercise 1*

Production function is given by  $q = K^{\frac{1}{2}}L^{\frac{1}{2}}$ , the price of the product is \$20, the wage of worker is \$2.5 per hour, and the capital is fixed at 1. Find the optimal number of workers that should be hired per hour.

- **Long-Run Profit Maximization**
  - **Approach**

**Part III****Welfare Economics**

- **Consumer Surplus**

- **Willingness to Pay (WTP)** – The \_\_\_\_\_  
that a \_\_\_\_\_ for a good.



- **Consumer Surplus (CS)** – The \_\_\_\_\_ a buyer is \_\_\_\_\_ for a good \_\_\_\_\_ the \_\_\_\_\_ the buyer \_\_\_\_\_, which is the \_\_\_\_\_ in the \_\_\_\_\_.  
⇒ CS measures the \_\_\_\_\_ buyers receive from \_\_\_\_\_ in a \_\_\_\_\_.



- **Producer Surplus**

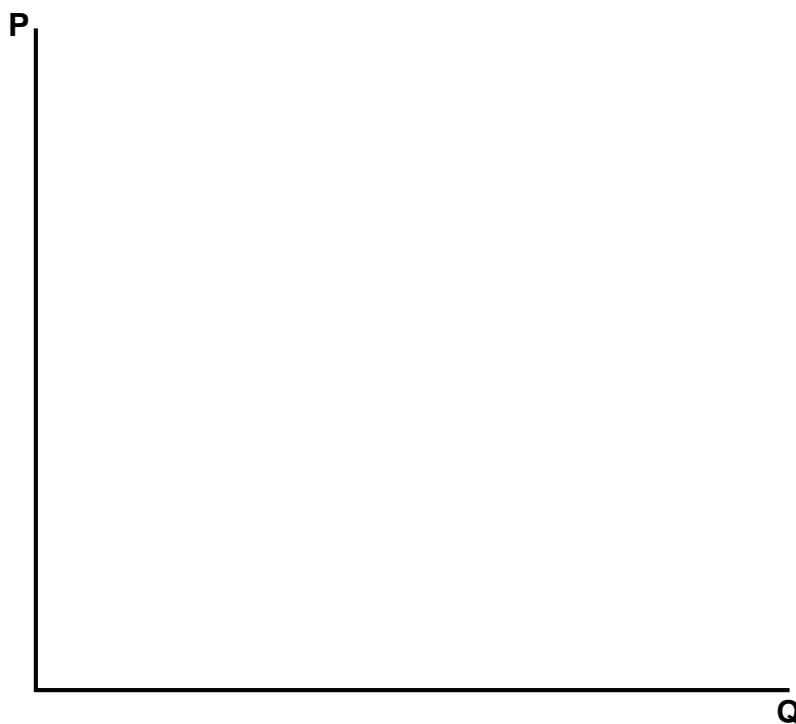
- **Willingness to Sell (WTS)** – The \_\_\_\_\_ that a \_\_\_\_\_ to \_\_\_\_\_ a good, which is the \_\_\_\_\_ of the producer.

- \_\_\_\_\_ on the \_\_\_\_\_ curve represents the \_\_\_\_\_ of \_\_\_\_\_.

⇒ For \_\_\_\_\_ produced, the \_\_\_\_\_ curve represents the \_\_\_\_\_ of \_\_\_\_\_.

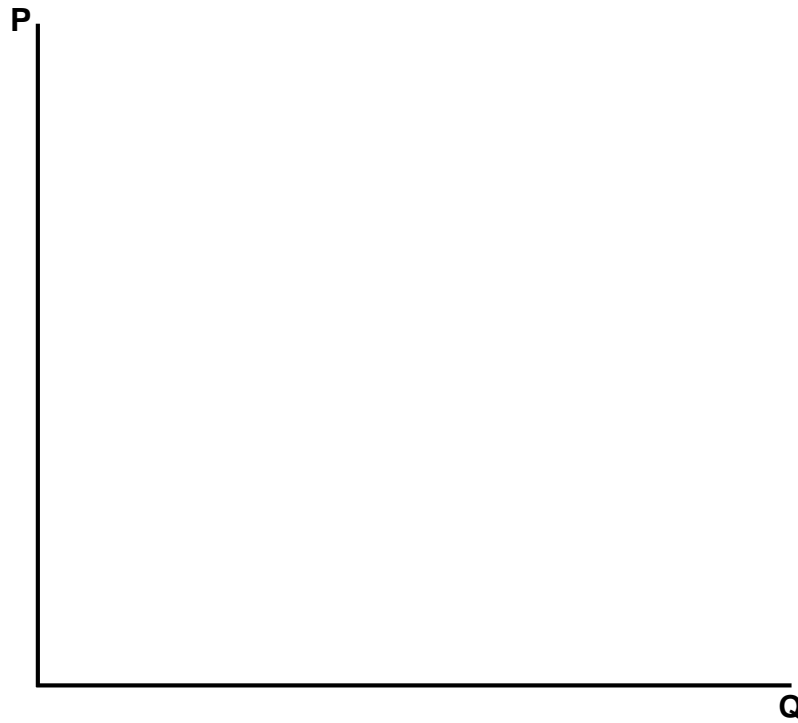
- The \_\_\_\_\_ of producing an \_\_\_\_\_ is the \_\_\_\_\_.

⇒ The \_\_\_\_\_ curve is exactly the \_\_\_\_\_ curve.



- **Producer Surplus (PS)** – The \_\_\_\_\_ a producer is \_\_\_\_\_ for a good, which is the \_\_\_\_\_ in the \_\_\_\_\_, \_\_\_\_\_ the producer's \_\_\_\_\_ of providing it.

⇒ PS measures the \_\_\_\_\_ sellers receive from \_\_\_\_\_ in a \_\_\_\_\_.





- **Total Surplus (TS)** – The \_\_\_\_\_ of \_\_\_\_\_ and \_\_\_\_\_:  
the \_\_\_\_\_ to \_\_\_\_\_  
of the goods, as measured by their \_\_\_\_\_, \_\_\_\_\_ the  
\_\_\_\_\_ to \_\_\_\_\_  
of \_\_\_\_\_ those goods.

