

Imperfectly competitive firms have some ability to set their own price: they are **price setters**.

- In the long run economic profits possible
- Reduce economic surplus

monopoly- has market power, has to determine price and how much to sell at that price. Has only one seller, with no close substitutes.

Monopolistic competition- has many firms producing slightly differentiated products that are reasonably close substitutes.

Oligopoly - has a small number of large firms producing products that are close substitutes.

law of demand - buyers buy less when price goes up, and more when price goes down.

Price	Quantity	TR(P x Q)	MR	
\$11	0	0	-	*the MR curve is always below the demand curve.
\$10	1	10	10	* MR = MC
\$9	2	18	8	* You find price on the demand curve
\$8	3	24	6	* consumer surplus is above price line
\$7	4	28	4	*producer surplus is below price line and above MC curve
\$6	5	30	2	
\$5	6	30	0	
\$4	7	28	-2	
\$3	8	24	-4	

$$Q=f(L,K) \quad f(2L,2K) = 2f(L,K) \quad f(2L,2K) \geq 2f(L,K)$$

Monopoly Profit

- Profit = Total Revenue - Total Cost
- Total Cost = ATC x Q
- Profit = P x Q - ATC x Q
- Profit = (P - ATC) x Q
- If $P > ATC$ the firm earns a profit
- If $P < ATC$ the firm suffers a loss

Price Discrimination - Monopoly's can charge different groups of people different prices for the same thing.

Monopoly	vs.	Perfectly Competitive Market
MC=MR		MC=MR
$P > MR$		$P = MR$
$P > MC$		$P = MC$
Deadweight loss		No deadweight loss
Decides Quantity & Price		Sellers only decide Quantity to sell at given price

Price discrimination - charging different buyers different prices for the same good or service.

- separate the groups
- no side trades among buyers

EX: Car insurance, the price of car insurance is different for different age groups and different genders.

Many forms;

Hurdle Method- discounts for identifiable groups (ex: students, AARP)

- EX: senior citizen discounts

Perfect Discrimination- negotiate separate deals with each customer. (charge each buyer their reservation price)

- the goal is to extract consumer surplus.
- total profit is much higher
- Reservation Price is the price each person is willing to pay

The Hurdle Method- practice of offering a discount to all buyers who overcome some obstacle.

- Ex: mail in a rebate

Monopoly and public policy

- Challenge: create the greatest increase in total surplus
- Policy options
 - Gov ownership and operation
 - regulation
 - competitive bids

To illustrate, consider a production process for which total cost is given by the equation $TC = F + M \cdot Q$, where F is fixed cost, M is marginal cost (assumed constant in this illustration), and Q is the level of output produced. For the production process with this simple total cost function, variable cost is simply $M \cdot Q$, the product of marginal cost and quantity. Average total cost (ATC), TC/Q , is equal to $F/Q + M$. As Q increases, average cost declines steadily because the fixed costs are spread out over more and more units of output.