

**SECTION 3**  
January 30, 2003

- **Monopoly**

Equilibrium conditions:  $MR = MC$

Characteristics of the equilibrium:

- (1)  $P > MC (= AC, \text{ by assumption})$
  - (2)  $Q < \text{competitive-}Q$
- (1) and (2)  $\rightarrow$  “monopoly profit” and “dead weight loss.”

- **Monopolistic competition**

Assumptions

- (1) Technology exhibits increasing return to scale (IRTS).
- (2) Every firm has market power and become a price-setter, due to its product differentiation. (Monopolistic part)
- (3) Firms take aggregate demand and the industrial average price as given. (Competition part)
- (4) Firms are symmetric.

Equilibrium conditions:

- (1) Firm optimality condition  
 $MR = MC$
- (2) Zero-profit condition  
 $P = AC$

(1) and (2)  $\rightarrow$  Number of firms is endogenous.

An example: See Problem 1 in HW2 from last year.

- **Measure of intra-industry trade**

$$I = 1 - |\text{Export} - \text{Import}| / (\text{Export} + \text{Import})$$

**Table 1. Degree of intraindustry trade for the US, January 2002**

Series	Agriculture	Mineral Fuels	Manufactures	Other goods
Exports (\$millions)	4822	896	45337	1665
Imports (\$millions)	3358	7589	72345	1984
EX-IM	1464	-6693	-27008	-319
Ex+IM	8180	8485	117682	3649
EX-IM /(EX+IM)	0.18	0.79	0.23	0.09
Intraindustry trade	0.82	0.21	0.77	0.91

Sources: The Office of Trade and Economic Analysis,  
<http://www.ita.doc.gov/td/industry/otea/>.