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# Oligopoly



# Oligopoly



- ❖ **A market structure in which a small number of firms compete with each other,**
- ❖ **The quantity that a firm sells depends on the firm's price and on the other firms' prices and quantities sold.**
- ❖ **Firms take into account the effects of their own actions on the behavior of other firms and the effects of the actions of other firms on their own profits.**

# **Rules of the Game**



- ❖ **Imagine you are an oligopolist.**
- ❖ **Divide yourselves into six groups of six to seven.**
- ❖ **Each group is a company.**

# Market Structure



- ❖ **All these companies produce identical commodity and sell their products in the same market.**
- ❖ **At this point of time, these six companies do almost 98% of the worldwide business.**
- ❖ **There are certainly others who are capable of entering the market.**

# Capital and Cost

- ❖ **Each firm initially has \$100.**
- ❖ **Every firm has a constant marginal cost of \$8 per unit of output.**
- ❖ **Since there is no fixed cost, average total cost also equals \$8.**

# Market Demand

❖ You are all facing a market demand:

$$Q = 40 - (1)P$$

➤ If there are 5 units of this good supplied in the market,  $Q=5$

$$5 = 40 - (1)P$$

$$P = 35$$

➤ The whole market's profit:

revenue- minus cost

$$(\$35 \times 5) - (\$8 \times 5) = \$135$$

# Prize

- ❖ **The goal of each company is to make as much profit as possible.**
- ❖ **There are prizes for all companies that earn more than \$100.**
- ❖ **There is an additional prize for the company that earns the most profit.**



# Production Decision Card

- ❖ **Decide how many goods to produce, given the cost of production and the amount of money you have in hands.**
- ❖ **Write down your desired production amount on the Production Decision Card within 1 minute.**
- ❖ **Don't communicate with other firms.**

向每一組分派一張「生產決議卡」。



# After 1 minute

❖ **Please hand me your  
Production Decision Card.**

❖ **I will help you calculate the  
following:**

- **the total market output**
- **market price**
- **profit for each company**

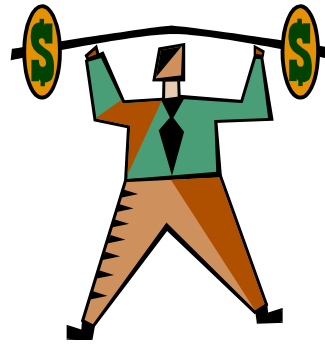


在表三記下每間公司的生產數量和計算出市場的總產量。

# Balance Sheet

## ❖ Calculate your own

- Cost
- Revenue
- Profit
- Balance.



## ❖ Record these information on the balance sheet.

向每组分派第一回合的收支平衡表。

# **Production Decision Card**



**❖ With the money you currently have, each group will now decide on the number of output you want to produce and supply in a new round.**

**❖ Write down your decision on the production decision card.**

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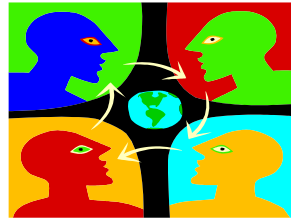


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向每組分派第一回合的收支平衡表。

# Convention

- ❖ **Now, each company can have a representative to take part in a convention. You can discuss whatever related to your business in the convention for three minutes.**



# **Production Decision Card**



- ❖ **No more communication between companies is allowed.**
- ❖ **Write down your production decision on production card for this round.**

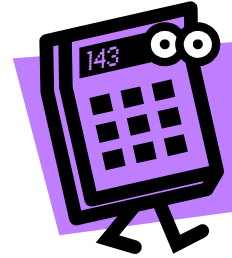
再次向每組派發一張「生產決議卡」。

# After 1 minute

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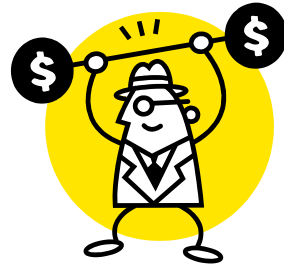


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# Discussion

❖ **Which team made the most money?**

❖ **What was your strategy?**



❖ **Which team made the least?**

❖ **What was your strategy?**

❖ **Why did it fail?**



# Discussion

❖ **How did you decide how much to produce?**

❖ **What did the factors affect your profit level?**



# Discussion



- ❖ **What did you talk about in the convention?**
- ❖ **Did you make some agreement?**
- ❖ **Did the agreement work?**
- ❖ **If yes, what was the impact of it on your profit?**



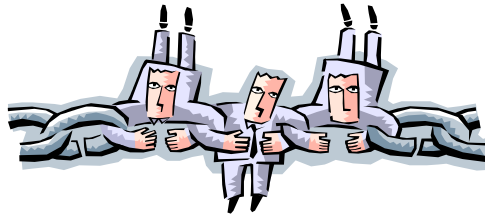
# Cartel



- ❖ **A group of firms in the same industry that agree to raise prices and restrict output is known as a cartel, and such behavior is known as collusion.**
- ❖ **If Cartel can enforce its agreement, each of its members can make higher profits than they otherwise would.**
- ❖ **However, there is always an incentive for each firm to cheat.**

# Discussion

- ❖ **Looking at all rounds of the experiment, make a generalization about the relationship between price and level of production/supply.**



# **Relationship between price and supply**



**❖ the firm's price**

**❖ the other firms' prices and quantities sold.**

- Firms take into account the effects of their own actions on the behavior of other firms and the effects of the actions of other firms on their own profits.**

# Case Studies

- ❖ **Use supermarkets and petrol stations in Hong Kong as example of oligopolists.**
- ❖ **Discuss the difference of price strategies these two industries use.**



