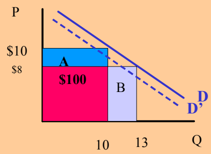
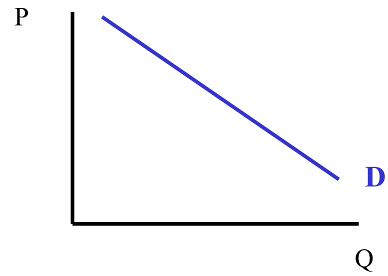
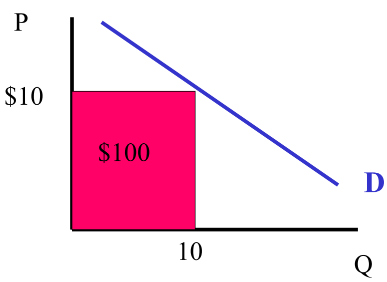
Duopoly



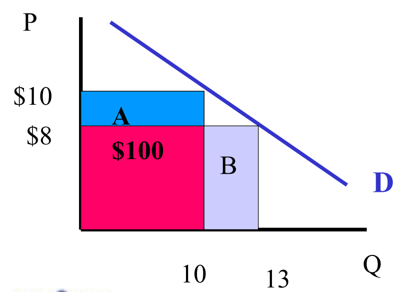
Duopoly



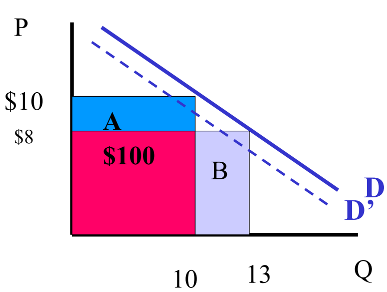
Duopoly



Duopoly



Duopoly



Definition

- A duopoly is a firm whose profits depends on the behavior of one – and only one – other firm.

Oligopolies

- A duopoly is a firm whose profits depends on the behavior of one – and only one – other firm.
- An oligopoly is a firm whose profits depends on the behavior of a few firms.

Duopolies vs. Oligopolies

- A duopoly is a firm whose profits depends on the behavior of one – and only one – other firm.
- An oligopoly is a firm whose profits depends on the behavior of a few firms.
- All duopolies are oligopolies, but all oligopolies are not duopolies.

Why Duopolies

- A duopoly is a firm whose profits depends on the behavior of one – and only one – oth

Duopoly models are simpler

- An oligopoly is a firm whose profits depends on the behavior of a few firms.
- All duopolies are oligopolies, but all oligopolies are not duopolies.

Defining an Oligopoly

- Often defined by four firm concentration ratio.

What percent of total sales come from the four largest firms?

Defining an Oligopoly

- Often defined by four firm concentration ratio.
- We use another definition:
  - *When other firms affect demand.*

The Cooperative Solution

- Two firms make up an industry.
  - How should they set price and output?

The Cooperative Solution

- Two firms make up an industry.
  - How should they set price and output?
- One option is to cooperate, work like a monopoly and split monopoly profits

An Illustration

Q = 100 – 2P

MC = \$5

An Illustration

Q = 100 – 2P

MC = \$5

- In a Competitive Industry, P = \$5; Q = 90

An Illustration

Q = 100 – 2P

MC = \$5

- In a Competitive Industry, P = \$5; Q = 90
- In a Monopoly, P = \$27.50; Q = 45

An Illustration

Q = 100 – 2P

MC = \$5

- In a Competitive Industry, P = \$5; Q = 90
- In a Monopoly, P = \$27.50; Q = 45
- Why not cooperate? Let each produce 22.5 and sell at \$27.50

The Problem

- Cartels are both illegal and difficult to maintain

The Problem

- Cartels are both illegal and difficult to maintain
- The Solution is to develop models of how firms behave when they cannot explicitly cooperate.

Modeling Duopoly

- The Cournot Model
- Nash Equilibrium
- The Bertrand Model

End