



Jane's ECON*1050 SLG

Session #11

When: Monday 1:30-4:30

Where: Library 200B

Random Facts

In Sweden there is a ski-thru McDonalds.

A goldfish has a memory span of about 3 seconds

A sneeze travels out your mouth at over 100 m.p.h.

Agenda

- 1) Sign attendance sheet
- 2) SLG End of Semester Feedback!
- 3) Chapter 16: Oligopoly
- 4) Questions!- Is there anything you guys would like to go over?

Remember

I will: Attend lecture, read the text, facilitate group learning & discussion

I will NOT: give you the answers, know everything about Microeconomics, be able to predict what is on your midterms & exams

Upcoming Deadlines

Tuesday, November 27th: Chapter 15 & 16 Quizzes

Wednesday, December 5th: FINAL EXAM!!! (You are done intro microeconomics in 9 sleeps!)

Chapter 16: Oligopoly

How to pronounce: OL-IG-OP-OL-Y!

Alright so now that we know how to say oligopoly what is it?



Some other key definitions for understanding the concept of an oligopoly:

Duopoly:

Collusion:

Cartel:

Once a cartel is formed, the two firms in the market would now operate as a _____.

Since they are operating as a monopoly what quantity would they choose to produce?

The Equilibrium for an Oligopoly

Define a Nash equilibrium



Oligopoly quantity is (circle one) greater than OR less than the monopoly quantity

Oligopoly quantity is (circle one) greater than OR less than the quantity produced in a perfectly competitive market.

Oligopoly price is (circle one) greater than OR less than the monopoly price

Oligopoly price is (circle one) greater than OR less than the competitive price.

When deciding whether to produce one additional unit an oligopolist has two effects to consider. What are these two effects?

1)

2)

As the number of sellers in an oligopoly grows larger, an oligopolistic market starts to resemble a _____ market.

Therefore price approaches _____.

GAME THEORY & THE ECONOMICS OF COOPERATION

In order to reach the monopoly outcome oligopolies must cooperate. As I'm sure you can imagine this can be difficult!

What is game theory?



An important "game" is the prisoner's dilemma. What is this?

Let's work through an example:

Johnny and Jenny have been caught red-handed stealing a chocolate bar. While interviewing the two prisoners, the Crown Attorney begins to suspect that he has stumbled onto the two people who were responsible for the multi-million dollar bank robbery last year. Because this is merely a suspicion he cannot convict them of the bank robbery unless he can get them to confess. He decides to make the prisoners play a game.

Rules: The two prisoners are placed in separate rooms and cannot communicate with each other. Each is told that that they are suspected of carrying out the bank robbery and that:

- 1) If they both confess to the larger crime, each will receive a sentence of 3 years for both crimes

- 2) If he alone confesses and his accomplice does not, he will receive an even shorter sentence of 1 year while his accomplice will receive a 10 year sentence.

Strategies: Johnny and Jenny have two possible actions:

- 1) Confess to the bank robbery
- 2) Deny having committed the bank robbery.

What are the 4 possible outcomes?

- 1)
- 2)
- 3)
- 4)

Let's organize these outcomes in a table:

Johnny's strategies

		Johnny's strategies	
		Confess	Deny
Jenny's strategies	Confess		
	Deny		

To predict the outcome let's use the Nash equilibrium. This states that player A chooses the best possible action given the action of player B and player B takes the best possible action given the action of player A.

Johnny's point of view:

If Jenny confesses what is his best possible outcome?

If Jenny does not confess what is his best possible outcome?

Jenny's point of view:

If Johnny confesses what is his best possible outcome?

If Johnny does not confess what is his best possible outcome?

Therefore what is each player's best action?

Quiz

- 1) An oligopolist will consider the reaction of other firms before it decides to cut its price.
 - a) True
 - b) False

- 2) A Nash equilibrium occurs when A takes the best possible action given the action of B, and B takes the best possible action given the action of A.
 - a) True
 - b) False

- 3) If duopolists agree to collude, they can (jointly) make as much profit as a single monopoly.
 - a) True
 - b) False

- 4) For colluding duopolists in a nonrepeated game, the equilibrium is always for both firms to cheat.
 - a) True
 - b) False

- 5) The above table gives the payoff matrix in terms of profit for firms A and B, when there are two strategies facing each firm: 1) charge a low price or 2) charge a high price. The equilibrium in this game is a Nash equilibrium because,
 - a) Firm B will reduce profit by more than A if both charge a lower price.
 - b) Firm B is the dominant firm
 - c) The best strategy for each firm does not depend on the strategy chosen by the other
 - d) There is no credible threat by either firm to punish the other if it breaks the agreement
 - e) None of the above

- 6) Refer to the above table. In Nash equilibrium, what are firm A's profits?
 - A) -\$10
 - B) \$2
 - C) \$10
 - D) \$20
 - E) Indeterminate

- 7) Refer to the above table. If both firms could agree to collude, what would Firm A's profits be?
 - a) -\$10
 - b) \$2
 - c) \$10
 - d) \$20
 - e) Indeterminate