

I. Oligopoly

A. Noncooperative models

1. What does conjectural variation represent?
 - a) What does it mean if $c.v. = 0$ for a change in price? What will firms do in this case?
 - b) What does it mean if $c.v. = 1$? What will firms do in this case?
 - c) What will firms do if $c.v. = 0$ for a price increase and 1 for a price decrease?
 - d) When is $c.v. = 1$ more likely to occur?
 - e) If firms do not compete based on price, how do they compete? Why?
2. Explain why a high price may not occur in a game theory model of oligopoly.
 - a) Why does this change with repeated games? When do repeated games (not) make sense?

II. Consumer theory

A. Utility

1. What is total utility? What is the marginal utility for a given product? What does it depend on?
2. What is the Law of Diminishing Marginal Utility? What happens to TU and MU_a as you get more of product a?

B. Utility maximization

1. When you are deciding which product to buy more of, what should you compare? For a given product, what does MU/P measure?
2. What is the condition for utility maximization?
3. How can this condition be used to derive the Law of Demand?
4. What do MU_a/MU_b and $(MU_a/MU_b) \times P_b$ measure? What are the corresponding conditions for utility maximization?

C. Indifference analysis

1. Indifference curves
 - a) In what sense do indifference curves "map" the utility function?
 - b) What does the slope of the indifference curve represent?
2. Budget constraints
 - a) Why is the budget constraint linear? What are the endpoints? What does the slope represent?
 - b) What happens if one of the prices changes? if income changes?
3. Utility maximization
 - a) Given a consumer's budget line, show the bundle that gives the highest possible utility.
 - b) Explain why this is the best bundle by interpreting the slopes of the budget constraint and an indifference curve.