I. Monopoly vs perfectly competitive market

A. Compare consumer and producer surplus in perfect competition and monopoly. Show the welfare loss (deadweight loss) due to monopoly.

B. Why might monopoly be even <u>worse</u> than suggested above?

C. Why might monopoly be <u>better</u> than suggested above?

II. Oligopoly

A. What is rivalry, and why does it only occur in oligopolies?

B. Conjectural variation

1. What does conjectural variation represent?
2. What does it mean if c.v. = 0 for a change in price? What will firms do?
3. What does it mean if c.v. = 1? What will firms do?
4. What will firms do if c.v. = 0 for a price increase and 1 for a price decrease?
5. When is c.v. = 1 more likely to occur?
6. If firms do not compete based on price, how do they compete? Why?

C. Game Theory

1. How is this different from the model of conjectural variation model of rivalry?
2. Explain why a high price may not occur in a game theory model of oligopoly.
3. Why does this change with repeated games? When do repeated games (not) make sense?

III. 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 $(MU_a/MU_b)xP_b$ 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.

4. Show the effect of a decrease in the price of one of the two products.