Handout on Monopoly and Perfect Competition

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Monopoly Questions

Let demand be given by $Q = 100 - 5p$. Let total costs be $C(Q) = 20 + 2Q$.

1. What are fixed costs, variable costs, marginal costs? Does this industry have economies of scale or not.
2. What is the optimal price and quantity for the monopolist?
3. Illustrate this using an appropriate diagram. On the same diagram, also show the marginal revenue curve.
4. What is the elasticity of demand at the point at which the monopolist produces? Can this elasticity take a value between 0 and -1? Justify your answer.
5. What is consumer and producer surplus? What is the dead weight loss resulting from this market outcome?
6. At what fixed cost would the firm choose to close down?
7. Suppose that there are 100 firms in the industry. Would this arrangement be socially optimal?
8. Derive the expression for the Learner Index as a function of elasticity of demand.

Vertical and Horizontal Integration: Evidence from Japan, United States, Germany and the U.K.

This problem set is based on the paper by Chandler "The Emergence of Managerial Capitalism" on the course website.

1. In what industries were economies of scale the most important. Why does this matter for the evolution of large firms.
2. What is the difference between the multi-division firm and a the firm run by a manager (such as the Medici banks)? What made this necessary?
3. Why was there an extensive service network in sewing machines? What is this an example of? What are other examples of vertical integration in the article?
4. Why did Germany not develop many packaged and branded good industries?
5. What were the differences between countries in terms of merger activity in the early 1900's. What reasons does Chandler give for this.