Microeconomics, Module 5: The Behavior of Firms

*Micro module 5 reading from tenth edition:* Landsburg, Chapter 5

(The attached PDF file has better formatting.)

Module 5 deals with the economic decision making of a firm.

! Section 5.1 shows how the equimarginal principle compares benefits and costs.
! Section 5.2 applies the principle to production and pricing scenarios.

Focus on the following topics:

*Section 5.1:* Marginal benefit is the additional benefit from the last unit of an economic activity; marginal cost is the additional cost for the last unit of that activity.

*Equimarginal principle:* An activity should be done up to the point where marginal cost equals marginal benefit, if marginal benefit is decreasing and marginal cost is increasing.

*Section 5.2:* To maximize profit, a firm produces where marginal cost equals marginal revenue. Changes in marginal cost or in demand change the price and quantity. Changes in fixed cost do not affect price or quantity unless they cause the firm to shut down.

Review questions R1, R2, R4, and R5. Final exam problems may give either numbers or formulas and ask the optimal quantity and price.

Review end of chapter problems 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, which give simple illustrations of the principles in the text; final exam problems are like end of chapter problems 14 and 15, which are numerical.

Some problems compare services which are competitive vs services offered by a monopolistic provider. The textbook gives a simple explanation of why an additional cost to competitive suppliers raises the price but an additional cost to a monopolistic supplier does not raise the price. In real life, prices are more complex. A monopolistic supplier such as the only eye doctor in town may set the price of a visit to maximize revenue from consumers but not too high that other eye doctors will move into town, hoping to partake of the high prices. Suppose the cost of visit in a competitive market is $100, the annual license raises the cost $20 a visit, the monopolistic price is $200 a visit, but any price above $150 a visit would attract competitors. With the new annual license, the eye doctor can charge up to $170 a visit without attracting competitors. A later module discusses game theoretic pricing, the subject of this paragraph.

Some problems distinguish future costs from past (sunk) costs. This topic is particularly relevant to actuarial candidates. Every time you fail an exam, you must consider: should I go on with the exams? The time you have spent in the past studying is not relevant. You must consider expected future study time and expected future benefits.

Landsburg uses discrete production schedules because most first year college students can't do calculus. The final exam problems for this course use continuous production schedules.