Microeconomics, Module 7, “Competitive Firms in the Short-run”

Required reading for seventh edition

(The attached PDF file has better formatting.)

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{The Landsburg textbook is excellent. We say to read certain sections and to skip others. This does not mean that certain sections are better; it means that the homework assignments and exam problems are based on the sections that you must read for this course. Some of the skipped sections are fascinating, but they are not tested.}

Modules 1-7 cover the tools of microeconomic analysis, following Landsburg's textbook; Modules 8-24 select topics from each textbook chapter. The most mathematical modules are #7 (competitive firm in the short run), #8 (competitive firm in the long run), #9 (welfare economics, consumers' surplus, and producers' surplus), #11 (monopoly), and #12 (price discrimination). The other modules focus on the economic reasoning, not the formulas.

Module 7 covers the first third of Chapter 7: competitive firms in the short-run. Know the definition of the competitive firm at the bottom right corner of page 169. The mathematical corollary is at the top of page 172: “The competitive firm's marginal revenue curve is flat at the going market price.” Know the two equations on page 171:

“total revenue = price × quantity” and “marginal revenue = price”

The final exam questions use *linear demand curves*, which create *linear marginal revenue curves*. Most *supply* curves on the final exam are linear or flat. Sometimes the final exam asks you to construct the supply curve, which may not be linear. If the final exam gives you a schedule for marginal cost or marginal revenue, the problem is solved directly from the schedule of figures given in the problem. The curves inferred from these figures may not be linear, but there is no need to construct curves.

For a competitive firm's supply curve, know the line on page 174: “for a competitive firm with an upward sloping marginal cost curve, the supply curve and the marginal cost curve look exactly the same.”

You can skip the box on page 174 and the subsection titled “U-shaped marginal cost curves” on pages 175-176; they are not tested on the final exam.

Know the relations on pages 176-177: $TR \geq VC$ and $P \geq AVC$; if these do not hold, the firm shuts down in the short run. If fixed costs are more than zero, the inequalities are strict.

Know the formula for the price elasticity of supply on the bottom of page 178. This is the same as the formula for the price elasticity of demand, except that we use the derivative of the supply curve, not the derivative of the demand curve.

Section 7.2, “the competitive industry in the short run,” is the basis of most final exam problems on this module. We show the procedure in the practice problems; the homework and final exam problems are the same. You are given the demand curve, the industry supply curve, and the firm’s marginal cost curve, from which you derive the market price and quantity, the firm’s quantity, and the number of firms in the industry (if they are the same size).

Section 7.3 is in Module 8, not Module 7.