

# Introduction to this *Online Supplement* to *Microeconomics for Managers*

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This website supplements *Microeconomics for Managers* (2<sup>nd</sup> edition), in a number of ways.<sup>1</sup>

- It contains, for most chapters, solutions to the problems in the textbook.
- It provides several long and complex exercises that complement material in the text.
- It provides some supplementary material that is too far from the main plot line in the text to be included there but that may be of interest to readers. Some of this material is found in one of five appendices; the rest appears in the appropriate chapters.
- It contains five sets of review problems and their solutions, one for each of the five major parts of the text, which will give students a chance to review their understanding of the material and to integrate across some of the chapters.
- A final “review” chapter lists thirty-five major take-aways from the book.
- Finally, as any typos in the published textbook are found, they will be listed in the “Errata” file.

Concerning the solutions to problems: In an ideal world of infinite time to devote to the study of microeconomics, you would (1) read a chapter in the text, (2) go to any related material in the *Supplement* related to that chapter and start to read, while (3) trying your hand at solving the problems before reading the solutions I offer, perhaps (4) working with a small group of peers, *after* you’ve tried the problems on your own.

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But time is not infinite, and you must find a system that works well for you. That said, you should *not* read through the solutions, deciding that you understand how they were done. Solving problems is as much about figuring out what techniques to use as it is using those techniques, and only by “doing” problems can you hone the first sort of skill.

Material is provided in individual pdfs, in the following order:

*Appendix 1. Calculus Cookbook.* This appendix provides a quick refresher on the sort of calculus the book employs.

*Appendix 2. Porter’s Five Forces.* Chapter 1 in the text makes reference to Porter’s Five Forces. For readers who are unfamiliar with the Five Forces, here is a brief discussion.

*Chapter 2 Material.* Solutions to all the problems in Chapter 2 except for Problem 2.7, which is solved in Appendix 3. Then (beginning on page S40) an extended analysis of the case-let from Chapter 2.

*Chapter 3 Material.* Solutions to both problems in Chapter 3.

*Appendix 3. The Classic Models of Duopoly.* Beginning with the solution to Problem 2.7, this appendix reviews the classic models of Cournot, Bertrand, and von Stackelberg. It then offers commentary on how these models are used by economists and whether they are appropriate to that use.

*Chapter 4 Material.* Solution to the single problem from Chapter 4.

*Review Problems I.* Review problems and their solutions, for Part I of the book.

*Chapter 6 Material.* Solutions to the problems from Chapter 6.

*Chapter 7 Material.* Solutions to the problems from Chapter 7, except for Problem 7.8, which is solved in Chapter 8.

*Chapter 8 Material.* Solutions to the problems from Chapter 8, with a bonus discussion concerning the possibility of marginal revenue functions that sometimes increase.

*Chapter 9 Material.* Solution to the single problem from Chapter 9.

*Review Problems II.* Review problems and their solutions, for Part II.

*Chapter 10 Material.* Solutions to the problems from Chapter 10.

*Chapter 11 Material.* Solutions to the problems from Chapter 11. Problem 11.10 concerns the problem of minimizing cost when the organization has a variety of cost-independent sources for what they sell (in other words, it is a *production allocation* problem); this sort of problem is discussed at length; it

reappears in the material for Chapter 15, where it connects to the efficiency of competitive-market equilibria. Problem 11.12 ultimately introduces the use of linear programming to solve cost-minimization problems for linear-activity technologies.

*Chapter 12 Material.* Solutions to the problems from Chapter 12. In addition, an exercise is presented and solved concerning optimal pricing when costs are driven by an experience curve.

*Review Problems III.* Review problems and their solutions, for Part III.

*Chapter 13 Material.* The solution to the one problem at the end of Chapter 13, followed by a detailed analysis of the GM Truck Coupon Model discussed in the chapter.

*Chapter 14 Material.* Solutions to problems from the end of the chapter. Then a model is presented that shows how industry-wide input-price effects can, even with free entry with the best available technology, lead to a rising supply function. And, at the end, a discussion of *monopolistic competition*.

*Chapter 15 Material.* Solutions to the problems in the text, a discussion of P.I.E. and the Four Slices versus Porter's Five Forces, and then alternative and more general proofs of the (allocative) efficiency of competitive markets.

*Chapter 16 Material.* Solutions to problems from the text.

*Chapter 17 Material.* Solutions to problems from the text, and a discussion of public goods.

*Review Problems IV.* Problems and their solutions for reviewing Part IV.

*Chapter 18 Material.* Solutions to problems from the text.

*Appendix 4. Expected Utility as a Normative Decision Aid.* A discussion of the normative case for using expected utility as a normative decision aid, both the case for and the case against.

*Chapter 19 Material.* Solutions to the problems from the text, and a short discussion of how insurance companies defeat risk aversion.

*Chapter 20 Material.* Solutions to the problems from the text.

*Chapter 21 Material.* Solutions to the problems from the text.

*Appendix 5. An Indifference-Curve Model and Analysis of Safelite.*

*Review Problems V.* Problems and their solutions for reviewing Part V.

*Thirty-five Takeaways.* Takeaways that summarize important lessons from

the text.

*Textbook Errata.*

The numbering system for problems, figures, and spreadsheets is as follows. For sections with titles like “Chapter 4 material,” figures, tables, and appendices are numbered consecutively (and separately) with a S preceding to signify that this is from the *Supplement*, as in Figure S4.2, which would be the second figure in “Chapter 4 material” from the *Supplement*. For appendices, the letter A and the appendix number precedes, so that Figure A3.1 would be the first figure in Appendix 3. For the sections of review problems, the correct roman numeral is used. Page numbers are preceded by S, for *Supplement*.

PLEASE NOTE!!! The posted material may contain typos. For that matter, the published textbook may (probably does) contain typos (although, I hope, fewer than the material posted here). If you spot anything that you believe is a typo (or worse, a think-o), please email me at [kreps@stanford.edu](mailto:kreps@stanford.edu) with details. I have the ability to correct and report all the material posted at this website, and I can list typos in the published book in the Errata.

Finally, I sincerely doubt that there will ever be a third edition, but one never knows, so any general feedback, good or bad, on the book or on the materials posted here would be gratefully received. Thanks.