University of California, Berkeley Fall 2006
ECON 100A Section 111, 112

8th Section Practical Tips (1 of 2)

I. Alternative Textbooks

If you find the required text insufficient, here are a few alternatives you can consider:

i. *Intermediate Microeconomics: A Modern Approach* by Hal R. Varian
ii. *Microeconomic Theory: Basic Principles and Extensions* by Walter Nicholson
iii. *Price Theory and Applications* by Jack Hirshleifer et al
iv. *Microeconomics and Behavior* by Robert H. Frank

II. Tips on working with IC-BC related questions

A. Always use Calculus unless otherwise specified

B. Use a graphing tool if allowed

I am not sure if you can bring a graphic calculator into exams. For homework however it is very helpful to have a graphic tool on hand. Not only could you do graphing questions with ease, it also helps in answering questions that ask for shape of IC explicitly or implicitly (e.g. violations of assumptions) because you have a much better idea of what is happening. You can try the following freeware:

Graph 4.1 http://padowan.dk/graph/

It is all over the web so look for alternative download sites if the above link does not work. It can even do symbolic differentiation!

C. Graphing Income and Substitution Effects

Question of this type usually ask you to represent the effects on the horizontal axis, simply because that is the more natural way of drawing. The best way is to do it in a slightly reverse way:

1. Draw BC1 and BC2 as instructed by the question
2. Draw BC3 at a reasonable position
   - BC3 should have the same slope as BC2 and crosses BC1
3. Draw IC1 so that it touches both BC1 and BC3
   - this gives us point A & D in lecture slides

4. Mark the two intersections from 3. on the horizontal axis
5. Determine the location of the intersection of IC2 and BC2 (point B)
    - Price decrease
        i. Normal Good
            B should be on the right of A & D
        ii. Inferior Good
            B should be between A & D horizontally
        iii. Giffen Good
            B should be on the left of A & D
    - Price increase
        i. Normal Good
            B should be on the left of A & D
        ii. Inferior Good
            B should be between A & D horizontally
        iii. Giffen Good
            B should be on the right of A & D

6. Mark the desire horizontal location of B on the horizontal axis and get the corresponding point on BC2; that is our point B
7. Draw IC2 so that it touches B

D. Be careful of Violation of Assumptions

No matter which method you have used to find the optimal interior solution, it always rest upon the assumptions we have made. Namely,

1. Completeness
2. Transitivity
3. More is Better
4. Diminishing Marginal Rate of Substitution (DMRS)

Violation of any one of the above there is no guarantee that the interior solution is optimal. Of the four assumptions, #3 and #4 are the most likely to be tested. The best way to test for violation is to take the corresponding partial derivatives.