

Market and Price Analysis HU WS 2006/2007, Exercises 1 (one page)

Exercises for Chapter 3

1. Give an example for human behavior which is not in accordance with the transitivity axiom.
2. Give examples of ordinal and cardinal orders.
3. Which difficulties would result from a purely ordinal measurement of the performance of students?
4. Show algebraically that the marginal rate of substitution of y for x equals the ratio of marginal utility of x divided by the marginal utility of y.
5. Sketch an indifference curve in a two goods space for i) coffee-milk and coffee, and ii) margarine and butter.
6. Can indifference curves cross? If not, which assumption rules this out?
7.
 - a. Which of the following remarks corresponds to nonconvex indifference curves:
 - i. "I would rather spend all my life in the country or all in the town, rather than divide myself between the two",
 - ii. "I prefer a mixture of town and country life to being restricted to one or the other."
 - b. Which type of preferences will produce a more stable economy?
8. Consider two individuals A and B with the following utility functions: $U_A = X^{0.6} \cdot Y^{0.4}$ and $U_B = X^{0.4} \cdot Y^{0.6}$
 - a. Currently they both consume as much X as Y. Could they improve their situation by exchange?
 - b. Can you say anything from the above about in which direction they should trade?
9.
 - a. Show that the following utility function $U = \alpha \frac{X^\delta}{\delta} + \beta \frac{Y^\delta}{\delta}$ is homothetic.
 - b. How does the marginal rate of substitution of the utility function under a. compare to that from a Cobb-Douglas utility function if $\delta = 0$?
 - c. How would you assess the substitutability between X and Y if $\delta = 1$?

Exercises for Chapter 4

10. A consumer spends her total income on two goods: Y and X. In situation A and B she acts as follows:

Situation	Income	Price for X	Price for Y	Quantity of X bought
A	40	1	1	20
B	60	2	1	25

Does the consumer behave in accordance with a consistent order of preferences?
(Hint: put the problem in a graph may help)