

### List of tasks for students:

1. What is meant by transitivity of preferences? Can you give an example of when preferences are transitive?
2. What are the characteristics of indifference curves and how it relates to the axioms of rational consumer behavior?
3. Assume that indifference curves are negatively sloped. What can you say about the preferences of consumers?
4. Draw the indifference curves, so that the marginal rate of substitution in consumption (MRSc) is constant. Draw some budget lines corresponding to different ratios of prices and determine the optimal combination of individual cases.
5. Explain the condition of consumer optimum.
6. Price of good X is 120 CZK. Price of good Y is 80 CZK. Consumer income is 5000 CZK.
  - a) Determine MRSE.
  - b) What happens to budget line and how it changes MRSE if income rises to 8,000 CZK?
  - c) What happens to the budget line and how it changes MRSE if the price of good X drops to 100 CZK?
  - d) What happens to the budget line and how it changes MRSE, if the price of good Y rises to 20 CZK?
  - e) What happens to the budget line and how it changes MRSE if  $P_X$  increases by 18 CZ and  $P_Y$  grows by 12CZK?
7. The consumer spends on the purchase of goods X and Y 100 CZK per week. Utility function is  $U = XY$ ,  $P_X$  is 4 CZK and  $P_Y$  is 10 CZK.  
How many goods X and Y will consumers buy?