Introduction to Economic Analysis  
Fall 2005  
Problem Set II

• **Problem set 2 - part a** - Consider the following $2 \times 2$ economy (two consumers A and B and two goods 1 and 2): $(w^1_A, w^2_A) = (1, 0)$ and $(w^1_B, w^2_B) = (1, 2)$ and the utility functions $u_A$ and $u_B$ for consumers A and B respectively are:

  \[ u_A = u(x^1_A, x^2_A) = x^1_A x^2_A \]

  \[ u_B = u(x^1_B, x^2_B) = x^1_B x^2_B \]

Can you find an algebraic formula for the contract curve (Hint: write down and solve the Social Planner problem)?

• **Problem set 2 - part b** - Consider again the above $2 \times 2$ economy. Solve for the competitive equilibrium (prices and allocations). (Hint: i) Solve for all the demand functions in the economy - how many are there? ii) Impose feasibility and solve for equilibrium prices - how many prices do you have to solve for? iii) Substitute prices in demand functions to find equilibrium allocations.)