

Public Economics
Spring 2025

ASSIGNMENT #1
(due on Feb 25th)

1. An economy has two agents A and B and two private goods x and y . Agent A 's preferences can be represented by $u_A(x_A, y_A) = \min\{2x_A, y_A\}$ and agent B 's preferences can be represented by $u_B(x_B, y_B) = x_B y_B$. There are 6 units of x and 12 units of y in the economy.
- Show in an Edgeworth box the set of efficient allocations.
 - Find the utility possibility frontier for this economy.
 - Determine the utilitarian and Rawlsian allocations and the associated utilities for the agents.
 - Using this example, discuss the following claim: «If an allocation gives all agents the same utility, it must be envy-free.» (max. 10 lines).
2. Try to model a real-life allocation problem (such as the example of splitting a cake, but involving two goods) where you can apply the concepts of equal division lower bound and no-envy. Describe the problem (including resources and preferences) and discuss whether the concepts lead to the same recommendations. Are they compatible with efficiency?