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Econ 812

HW #2 (please type all answers)

1. Suppose 50% of all agents in an economy have $U = \ln x + \ln y$, and the other 50% have $U = 2 \ln x + \ln y$. All agents start with one unit of x and one unit of y . Find the general equilibrium relative prices and allocations.
2. Re-do problem #1, assuming that the first type of agent starts with 2 units of x and 0 of y and the second type of agent starts with 2 units of y and 0 of x .
3. Re-do problem #1, assuming that all agents have $U = x + y$. (Hint: At disequilibrium prices, agents want to consume only x or only y).
4. Suppose you can redistribute x , but not y . Returning to problem #1, what exactly must you do to:
 - (a) make the equilibrium utility of the first type of agents equal to .5,
 - (b) give all agents of the second type the same utility,
 - (c) and make type-2 agents' utility as high as possible conditional on (a)?
5. (half page) Use general equilibrium analysis to explain why barbers earn higher real wages now than in 1900, even though there has been little technological progress in this industry.
6. (half page) Explain how betting markets could be used to resolve a practical controversy of your choice. Carefully explain the exact bet or bets that would need to be offered. Would you be willing to bet against the market?