Microeconomics - Problem Set 1

September 20, 2017

Exercise: Lexicographic preferences

Assume lexicographic prefences.

Show the preferences are rational.

Show that if a function represents the preferences, then it would not be continuous.

Show that such a function does not exist.

Exercise: Continuous preferences

If $u : X \to R$ a continuous function represents $\succeq$, show that $\succeq$ is rational and continuous.

May a continuous preference be represented by a discontinuous utility function?

Show that when the alternatives set is $\mathbb{R}$, the preference represented by the ceiling function is not continuous.