

200A Discussion 1

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Problem 1.

In general, $\max(S, \succsim) \subseteq \text{MAX}(S, \succsim)$. If \succsim is complete, then $\max(S, \succsim) = \text{MAX}(S, \succsim)$, $\forall S \subseteq X$.

Problem 2.

Let \succsim be a complete and transitive preference relation on a set X . If S is a nonempty finite subset of X , then $\text{MAX}(S, \succsim) \neq \emptyset$

Problem 3.

Problem set 1, Problem 3(b), Rubinstein, 2012. (Your textbook)

Let Z be a finite set and let X be the set of all nonempty subsets of Z . Let \succsim be a preference relation on X (not Z).

Consider the following two properties of preference relations on X :

1. If $A \succsim (\succ) B$ and C is a set disjoint to both A and B , then $A \cup C \succsim (\succ) B \cup C$.

2. If $x \in Z$ and $\{x\} \succ \{y\}$ for all $y \in A$, then $A \cup \{x\} \succ A$, and

if $x \in Z$ and $\{y\} \succ \{x\}$ for all $y \in A$, then $A \succ A \cup \{x\}$

b. Provide an example of a preference relation that (i) Satisfies the two properties. (ii) Satisfies the first but not the second property. (iii) Satisfies the second but not the first property.