

Maxminimizing Strategies

Definition

Let $\{\{1, 2\}, (A_i), (\succeq_i)\}$ be a strictly competitive strategic game. The action $x^* \in A_1$ is a **maximizer for player 1** if

$$\min_{y \in A_2} u_1(x^*, y) \geq \min_{y \in A_2} u_1(x, y) \text{ for all } x \in A_1.$$

The action $y^* \in A_2$ is a **maximizer for player 2** if

$$\min_{x \in A_1} u_2(x, y^*) \geq \min_{x \in A_1} u_2(x, y) \text{ for all } y \in A_2.$$

Example:

| | | Player 2 | |
|----------|---|----------|-----|
| | | L | R |
| Player 1 | U | 3,4 | 6,1 |
| | D | 5,2 | 4,3 |