

Quiz (Nash Equilibrium Section)

March 17, 2017

Given the matrix

$$A = \begin{bmatrix} 3 & 3 & 0 \\ 0 & 0 & 3 \\ 0 & 0 & 2 \end{bmatrix}, B = \begin{bmatrix} 3 & 5 & 2 \\ 3 & 0 & 2 \\ 0 & 5 & 2 \end{bmatrix}$$

1. List all extreme points of $\bar{P} = \{\mathbf{x} : \mathbf{x} \geq 0, \mathbf{x}^T B \leq 1\}$ and $\bar{Q} = \{\mathbf{y} : \mathbf{y} \geq 0, A\mathbf{y} \leq 1\}$.
2. Show $G[U_3]$ and decide $L(v_1)$ and $L(v_2)$ for each vertex $v = (v_1, v_2)$.
3. Reduce from graph $G[U_3]$ to a Sperner triangle.