Exercise sheet 5

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Exercise 1:

Suppose that the pure strategy s^* is evolutionarily stable.

- 1. Is it possible that there is some other pure strategy that weakly dominates s^* ?
- 2. Is it possible that there is some other pure strategy that is not weakly dominated by s^* ?

Exercise 2:

Consider the following symmetric two-player game:

$$\begin{array}{c|cc} & a & b \\ a & 3,3 & 0,0 \\ b & 0,0 & 1,1 \end{array}$$

- $1. \ \ Find \ all \ the \ symmetric \ Nash \ equilibria, including \ any \ mixed-strategy \ equilibria.$
- 2. Find all the evolutionarily stable strategies, including any mixed-strategy ESS.