

1. Which statement best describes a strategy in a Normal Form Game?

- ☐ A strategy in a Normal Form Game is a method for a player to randomize between actions, ensuring that no other player can predict their choices.
- ☐ A strategy in a Normal Form Game is the choice of actions a player takes, chosen after observing the actions of all other players.
- ☐ A strategy in a Normal Form Game refers to a player's selection of a single action that maximizes their payoff in the current round, without considering other actions.
- ☐ A strategy in a Normal Form Game is a plan that specifies a way for a player to choose an action.

2. Given the action set $\mathcal{A} = (\alpha, \beta, \gamma, \epsilon)$ what is the support of the strategy $\sigma = (1/3, 0, 0, 2/3)$

- ☐ $\{\epsilon, \gamma, \beta\}$
- ☐ $\{\alpha, \epsilon\}$
- ☐ $\{\alpha, \beta\}$

3. Consider the game with payoff matrices:

$$A = \begin{pmatrix} 4 & 3 & 4 \\ 0 & 5 & -1 \\ 1 & 1 & 1 \end{pmatrix} \quad B = \begin{pmatrix} 3 & 7 & 4 \\ -1 & 2 & 3 \\ -10 & 3 & 1 \end{pmatrix}$$

and the strategies $\sigma_r = (1, 0, 0)$ and $\sigma_c = (1/2, 1/4, 1/4)$. What are the utilities to both players:

- ☐ $u_r = 3.6$ and $u_c = 15.3$.
- ☐ $u_r = 3.6$ and $u_c = 5.3$.
- ☐ $u_r = 3.75$ and $u_c = 4.25$.