

## [Graded] Value Functions and Bellman Equations

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Graded Assignment • 45 min

English ▼ Due Jun 11, 11:59 PM +07

# Your grade: 81.81%

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To pass you need at least 80%. We keep your highest score.

Next item →

1. A function which maps \_\_\_\_ to \_\_\_\_ is a value function. [Select all that apply]

1 / 1 point

☒ State-action pairs to expected returns.

✔ Correct

Correct! A function that takes a state-action pair and outputs an expected return is a value function.

☐ Values to actions.

☒ States to expected returns.

✔ Correct

Correct! A function that takes a state and outputs an expected return is a value function.

☐ Values to states.

2. Consider the continuing Markov decision process shown below. The only decision to be made is in the top state, where two actions are available, left and right. The numbers show the rewards that are received deterministically after each action. There are exactly two deterministic policies,  $\pi_{\text{left}}$  and  $\pi_{\text{right}}$ . Indicate the optimal policies if  $\gamma = 0$ ? If  $\gamma = 0.9$ ? If  $\gamma = 0.5$ ? [Select all that apply]

1 point

