

Your grade: 80%

Your latest: 80% • Your highest: 80%

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

Next item →

1. Which approach ensures continual (never-ending) exploration? (Select all that apply)

1 / 1 point

☒ Exploring starts

✔ Correct

Correct! Exploring starts guarantee that all state-action pairs are visited an infinite number of times in the limit of an infinite number of episodes.

☐ On-policy learning with a **deterministic** policy

☒ On-policy learning with an ϵ -soft policy

✔ Correct

Correct! ϵ -soft policies assign non-zero probabilities to all state-action pairs.

☒ Off-Policy learning with an ϵ -soft behavior policy and a **deterministic** target policy

✔ Correct

Correct! ϵ -soft policies have non-zero probabilities for all actions in all states. The behavior policy is used to generate samples and should be exploratory.

☐ Off-Policy learning with an ϵ -soft target policy and a **deterministic** behavior policy

2. When can Monte Carlo methods, as defined in the course, be applied? (Select all that apply)

1 point

☒ When the problem is **continuing** and given a batch of data containing sequences of states, actions, and rewards

✘ This should not be selected

Incorrect, the full return is only available at the end of an episode. Please review Lesson 1 (Video: What is Monte Carlo?)

☐ When the problem is **continuing** and there is a model that produces samples of the next state and reward

☒ When the problem is **episodic** and given a batch of data containing sample episodes (sequences of states, actions, and rewards)

✔ Correct

Correct! Well-defined returns are available in episodic tasks.

☐ When the problem is **episodic** and there is a model that produces samples of the next state and reward

3. Which of the following learning settings are examples of off-policy learning? (Select all that apply)

1 / 1 point

☒ Learning the optimal policy while continuing to explore

✔ Correct

Correct! An off-policy method with an exploratory behavior policy can assure continual exploration.