Your grade: 90%

Your latest: **90%** • Your highest: **90%**

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

Next item →

1. The value of any state under an optimal policy is ___ the value of that state under a non-optimal policy. [Select all that apply] 1 / 1 point

- [ ] Strictly greater than
- [x] Greater than or equal to

Correct
Correct! This follows from the policy improvement theorem.

- [ ] Strictly less than
- [ ] Less than or equal to

2. If a policy π is greedy with respect to its own value function v_π, then it is an optimal policy. 1 / 1 point

- (•) True
- ( ) False

Correct
Correct! If a policy is greedy with respect to its own value function, it follows from the policy improvement theorem and the Bellman optimality equation that it must be an optimal policy.

3. Let v_π be the state-value function for the policy π. Let $v_{\pi'}$ be the state-value function for the policy π'. Assume $v_\pi = v'_\pi$. Then this means that $\pi = \pi'$. 1