

Exercise set #6

You do not have to hand in your solutions to the exercises and they will **not** be graded. However, there will be four short tests during the semester. You need to reach $\geq 40\%$ of the total points in order to be admitted to the final exam (Klausur). The tests are held at the start of a lecture (room 25.22.U1.74) at the following dates:

- Test 1: Thursday, 6 November 2025, 10:30 - 10:45
- Test 2: Thursday, 27 November 2025, 10:30 - 10:45
- Test 3: Thursday, 11 December 2025, 10:30 - 10:45
- Test 4: Thursday, 15 January 2026, 10:30 - 10:45

Please ask questions in the RocketChat

The exercises are discussed every Wednesday, 14:30 - 16:00 in room 25.12.02.33.

1. TD control

Implement Sarsa, Q-learning and expected Sarsa and apply them to the cliff walking environment from the lecture. The goal is to recreate Figure 6.3 from the textbook¹, which compares different learning rates. Follow the instructions in the Jupyter notebook `td-control.ipynb`.