

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 $\geq 50\%$ 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 2522.U1.74) at the following dates:

Test 1: Thursday, 31 October 2024, 10:30-10:45

Test 2: Thursday, 21 November 2024, 10:30-10:45

Test 3: Thursday, 5 December 2024, 10:30-10:45

Test 4: Thursday, 9 January 2025, 10:30-10:45

Please ask questions in the RocketChat

The exercises are discussed every Wednesday, 14:30-16:00 in room 2512.02.33.

1. Sarsa and Q-learning

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

Exercises by Stefan Harmeling, used with permission

¹<http://incompleteideas.net/book/the-book-2nd.html>