Assignment 11

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Problem 1

Reference tabular_mc_prediction.py.

Problem 2

Reference tabular_td_prediction.py.

Problem 3

We test on frog puzzle problem in assignment 2. Since we will use Monte-Carlo and the SimpleInventoryMRPFinite is not episodic. Therefore, we can not get trace experiences from this easily. I remembered that Sven told me Monte Carlo can only be applied to episodic process.

Reference tabular_mc_prediction.py, tabular_td_prediction.py and frog_puzzle_mrp.py. We show the result at the end of the script. We found that the pattern are the same. For example, if V(a) > V(b) using tabular Monte-Carlo, we have V(a) > V(b) using Monte-Carlo Function Approximation. Same result is applied to TD method. But there is some difference between the values. Maybe because the function approximation I use is not good enough. Notice that the solution we get from tabular version matches which is gotten by DP algorithm.