

CS 438/590: Artificial Intelligence

Assignment 3 – Fall 2022

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Problem 1 [8pts]

For the gridworld example below, we will perform reinforcement learning.

	D	G
C	A	B
F	E	

Consider the following observed transitions:

(A, South, E, 2), (E, North, A, 1), (A, East, B, 2), (A, North, D, 4), (B, West, A, 3),
(A, West, C, 4)

The initial value of each state is 0, and $\gamma = 0.1$ and $\alpha = 0.5$. Don't round your answers.

- [4pts]** Perform TD learning and report all the learned values for all states in gridworld.
- [4pts]** Perform Q learning and report all the learned Q-values in gridworld.