

COMS 4771 Machine Learning (Spring 2020)  
Problem Set #4

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**Problem 1: Finding the value of a state under a policy**



## Problem 2: Solving for a value function using linear algebra



### **Problem 3: Finding the value states “in the real world”**



## **Problem 4: Finding an optimal value function**





## **Problem 5: Finding the optimal policy using iterative methods**



**Problem 6: Find the optimal value function for grid-world**



## Problem 7: A model-free approach



## Extra Credit