

**CS1571**  
**Fall 2019**  
**9/30 In-Class Worksheet**

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Where were you sitting in class today: Center Middle

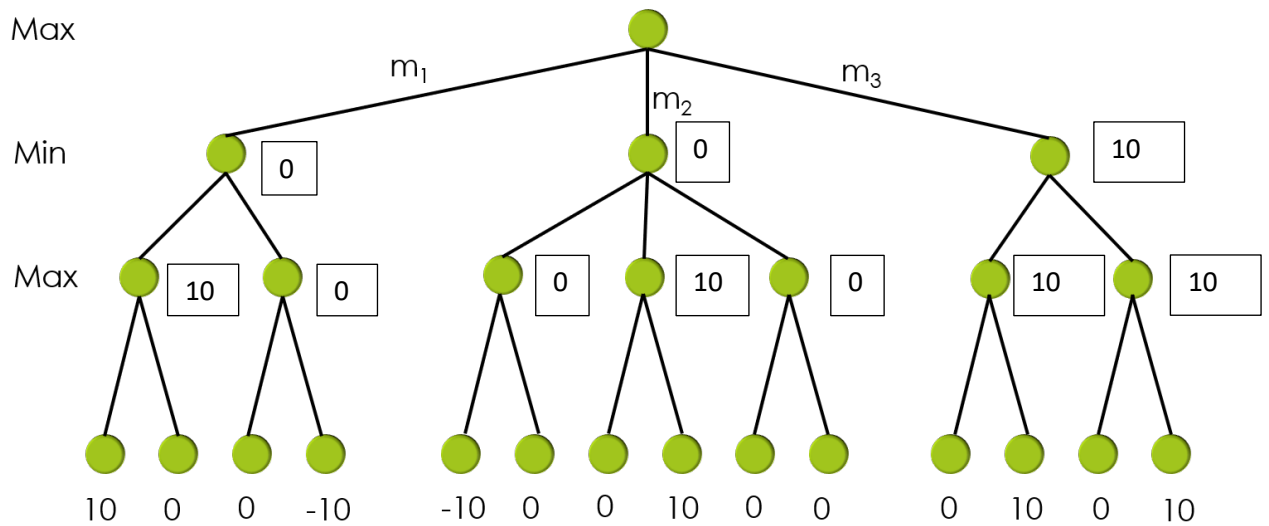
**A. Adversarial Search**

1. Which move does MAX take in this scenario.

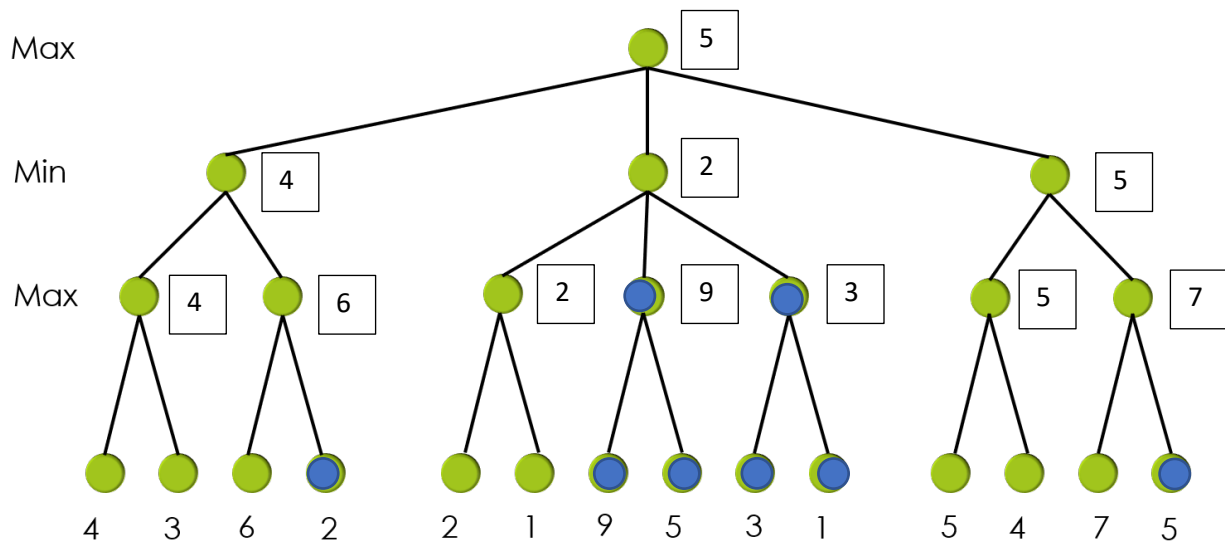
    $m_1$

    $m_2$

    $m_3$



2. Mark the nodes of the tree that will never be explored:



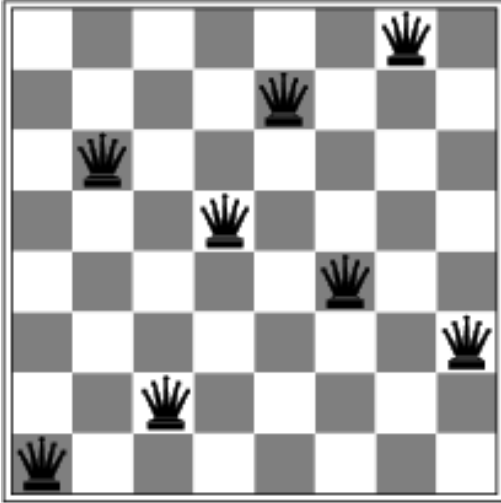
For the first section, we know that the max is 4 as of now and then when you look at the second node, we know that the max is going to choose 6 but min will choose 4 so the value would have to be a number that is greater than 4 but less than 6 so you don't have to look at the next node (2). Now since the min value is 2

3. Why is this not an accurate depiction of the hill-climbing algorithm?



Not hill climbing because it always selects the states that are most optimal to move to but these steps do not depict that the algorithm choosing the most optimal step.

4. What is the next hill-climbing move in this problem?



Risk is that you can get stuck in a non solution that cannot be improved. There is no move here that will take you to a solution of a 0 constraint state which is the goal state.