

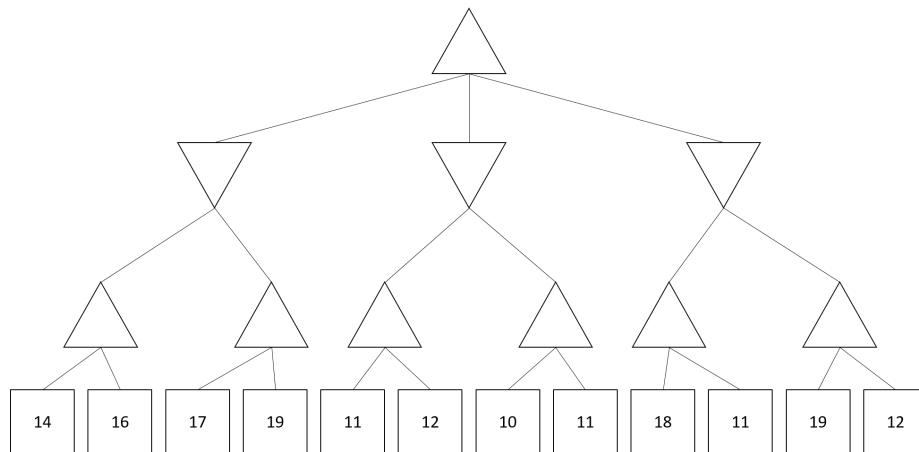
CS486: Artificial Intelligence
Homework 4 (15 pts)
Adversarial Search
Due 29 Sep 2017 @ 1630

Instructions

This is an individual assignment; however, *you may receive assistance and/or collaborate without penalty, so long as you properly document such assistance and/or collaboration in accordance with DAW.*

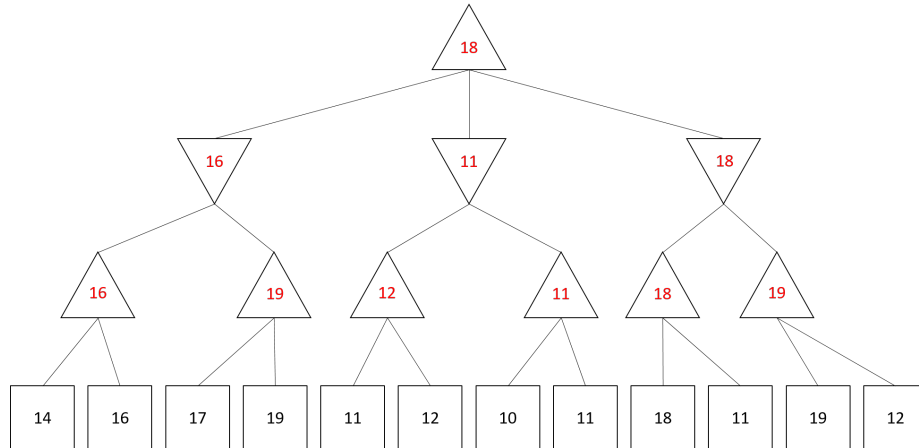
Answer the questions below and submit a hardcopy with DAW coversheet and acknowledgment statement to your instructor by the due date.

Problem 1: Minimax and α - β Pruning

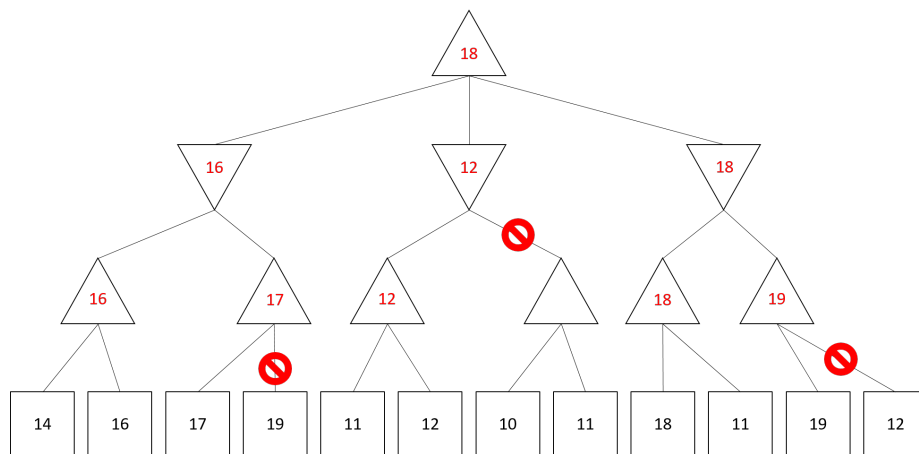


For the minimax tree above:

a. Label each node with its minimax value.



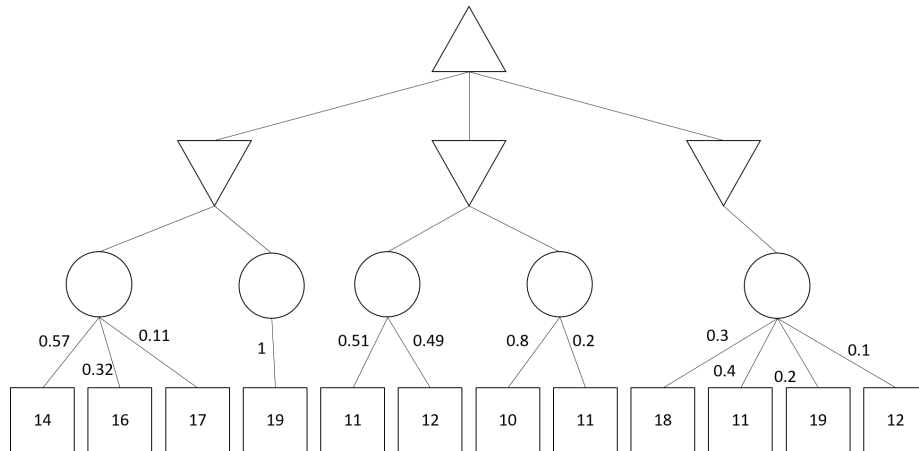
b. Indicate the branches that would be pruned by α - β pruning. Show your work.



See <https://www.youtube.com/watch?v=jvpWtwVSvjA>. This is essentially the same problem, since minimax is insensitive to monotonic transformations.

Problem 2: Expectiminimax

For the expectiminimax tree above:



- a. Label the chance nodes with their expected values and the min and max nodes with their minimax values.

