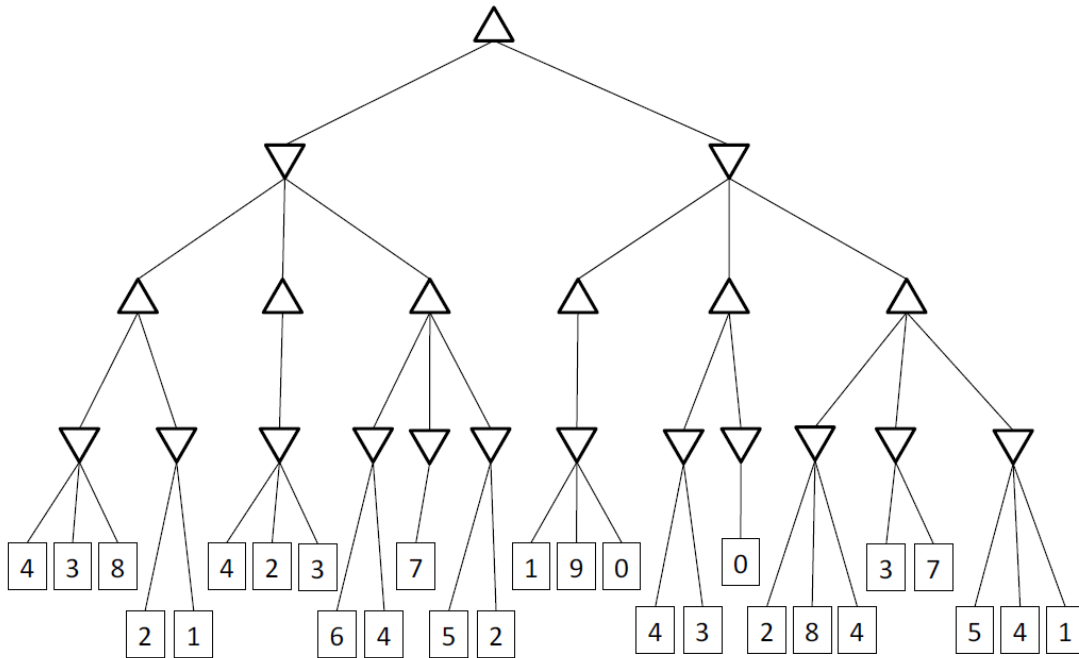


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Assignment 2

1. (a) For the tree below, calculate the minimax values for all states in the tree without pruning, and then show which branches will be alpha-beta pruned.



(b) Using section 5 from the paper, An Analysis of Alpha-Beta Priming by Donald E. Knuth and Ronald W. Moore, summarize in point form the history of the Alpha-Beta search algorithm.

2. Game environments are accessible, deterministic, and discrete, leading to some of the earliest work in artificial intelligence. Many research results have found their way into successful commercial applications.

Your task is to write a program that can play connect-4 with a human. You will need to compute the next move in the game using the alpha-beta search algorithm.

The program should print a representation of the game state after each move.

You can use the Python programming language.

I will need to play your program and defeat it.