

Solution

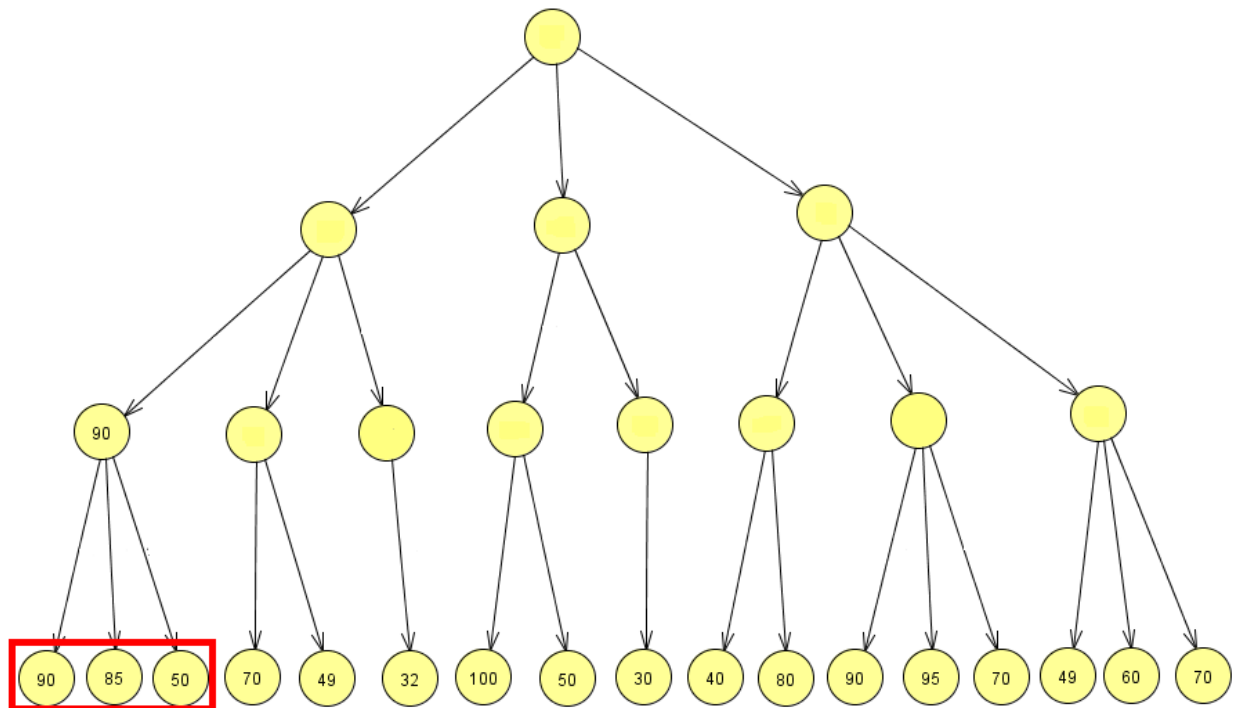
Assignment # 02

Spring 2012

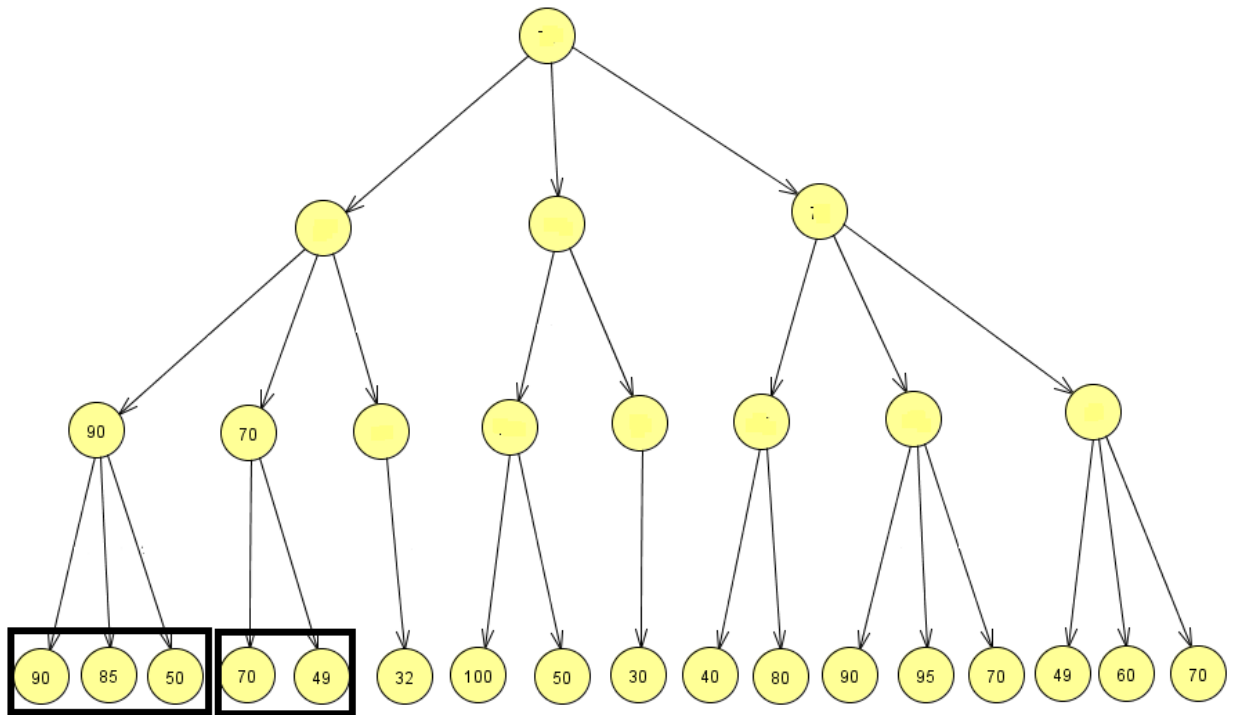
Assignment:

Q01. Simulate the Minimax procedure with Alpha Beta Pruning algorithm on the following search tree and find the maximized value.

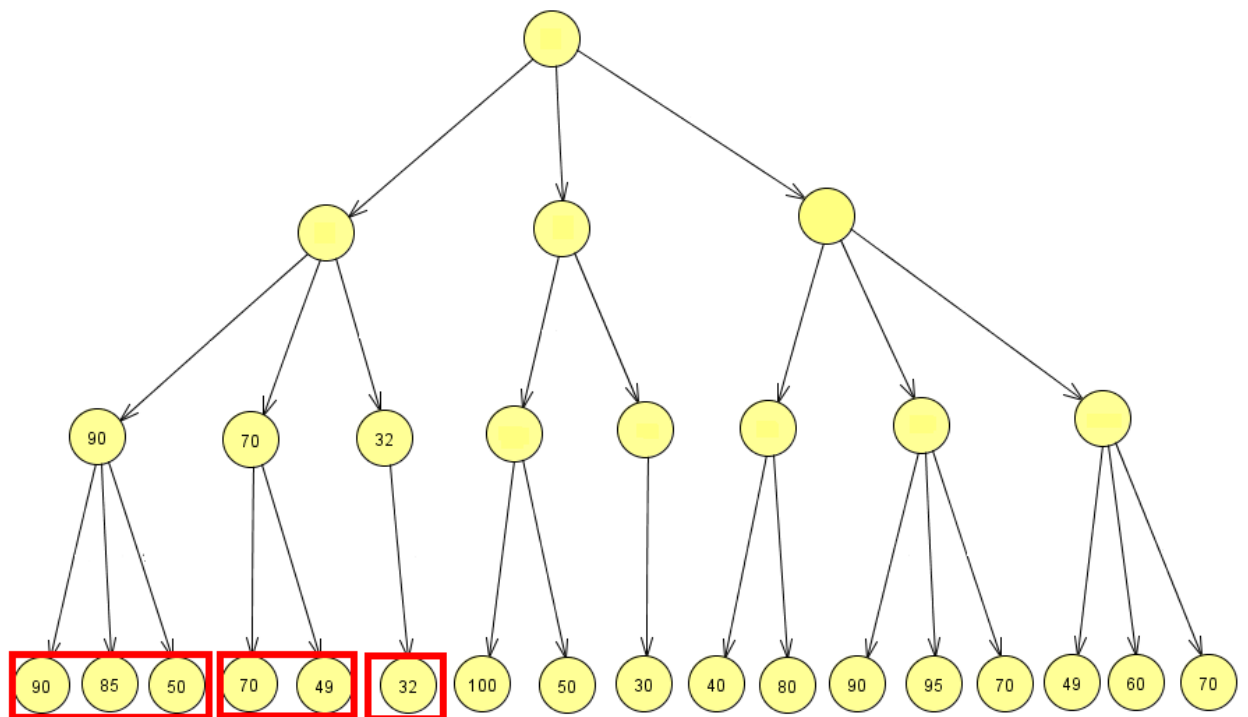
Solution: Step 1



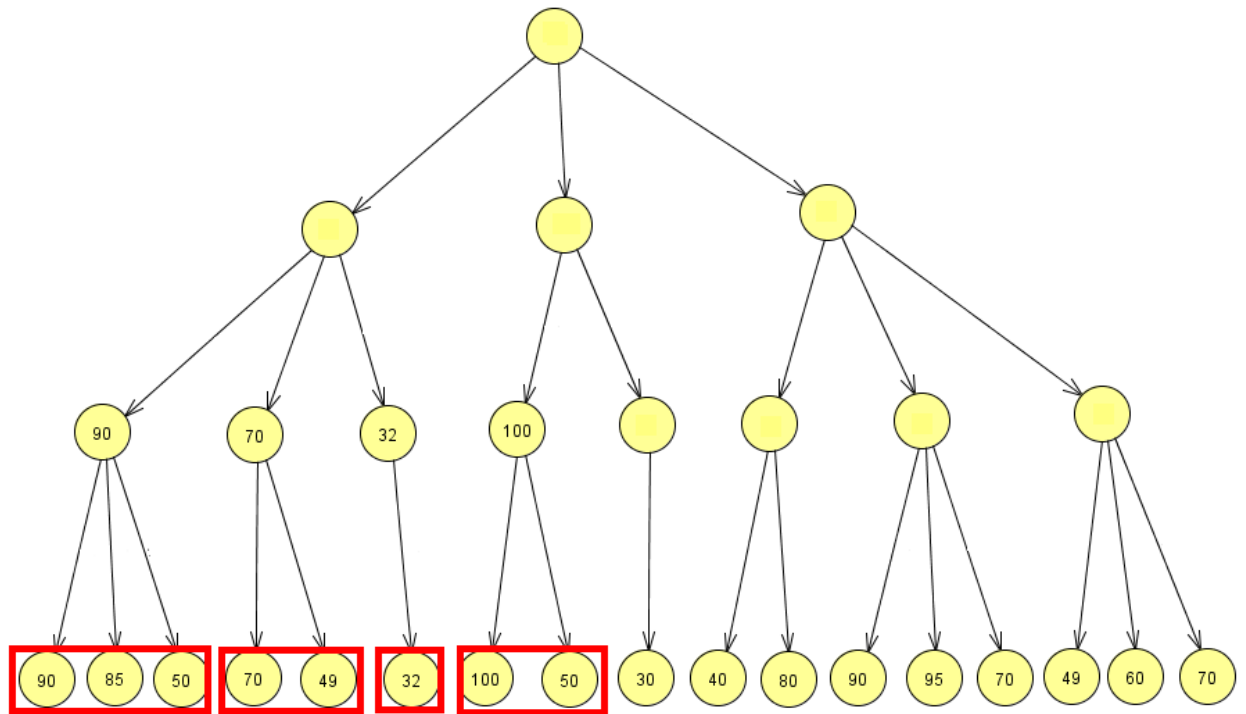
Step 2



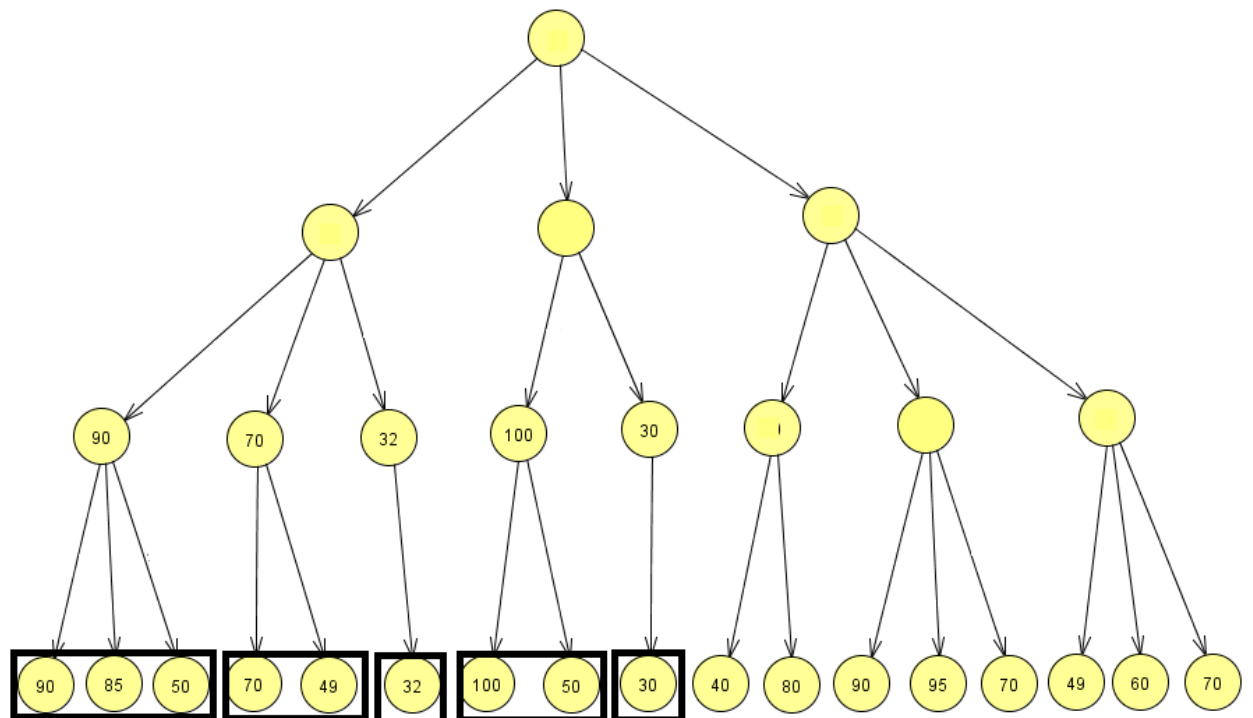
Step 3



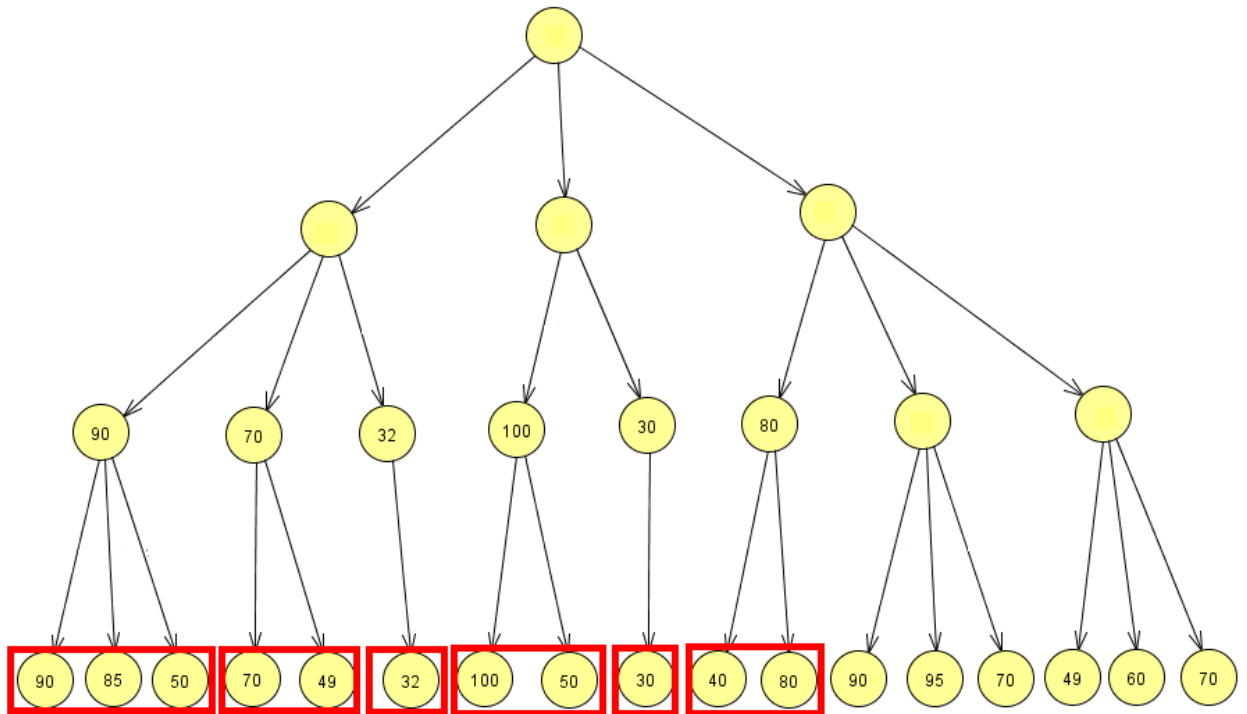
Step 4



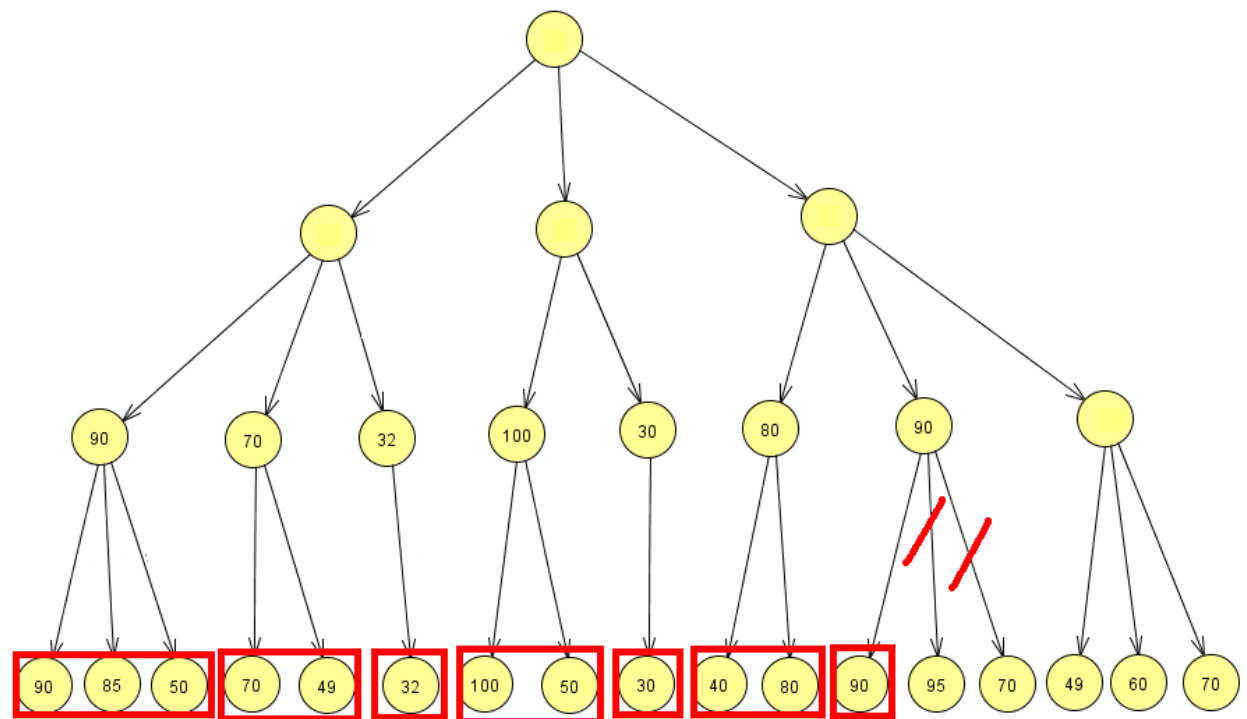
Step 5



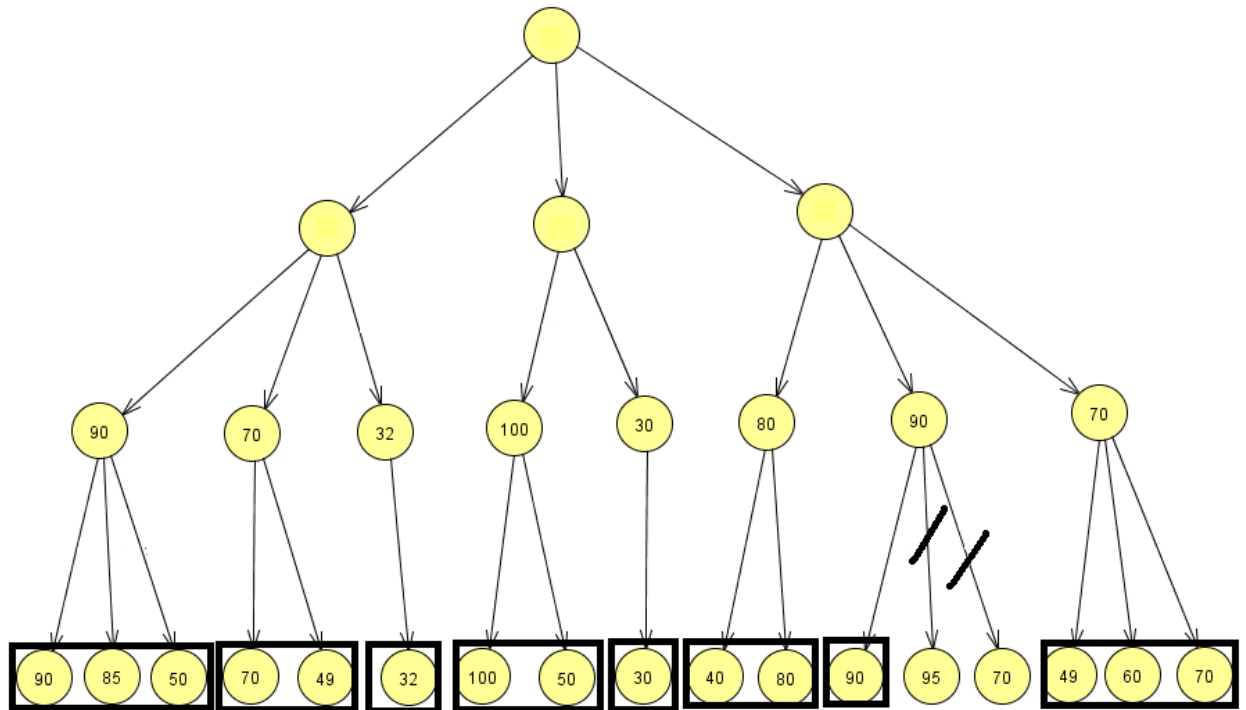
Step 6



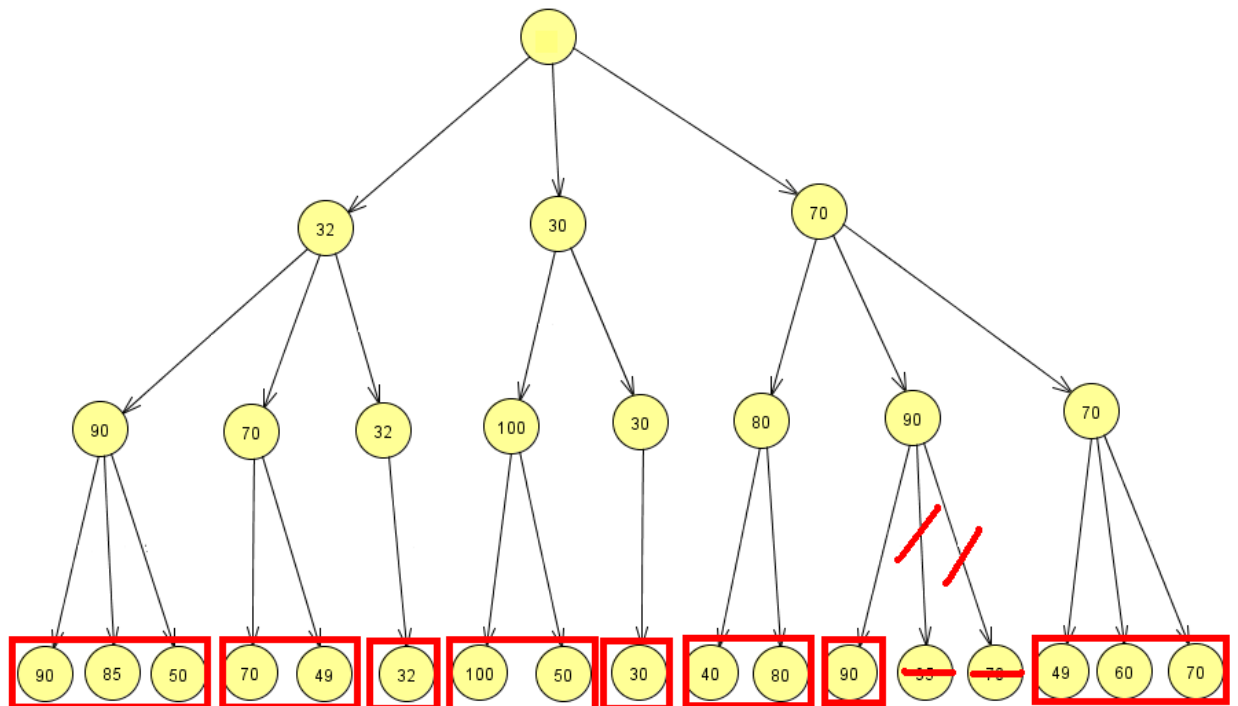
Step 6



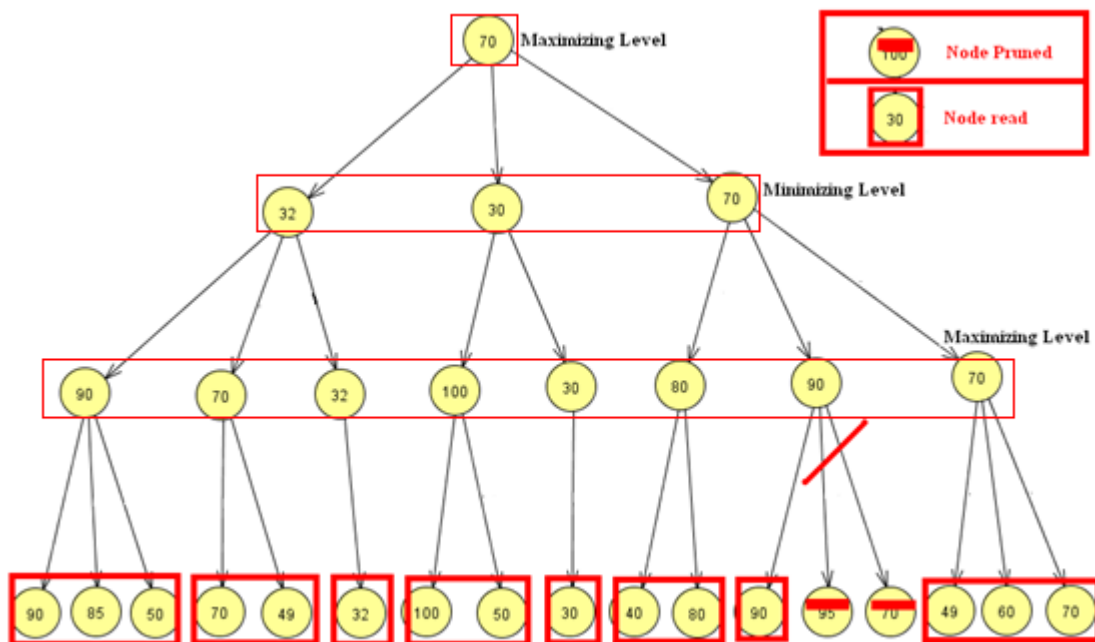
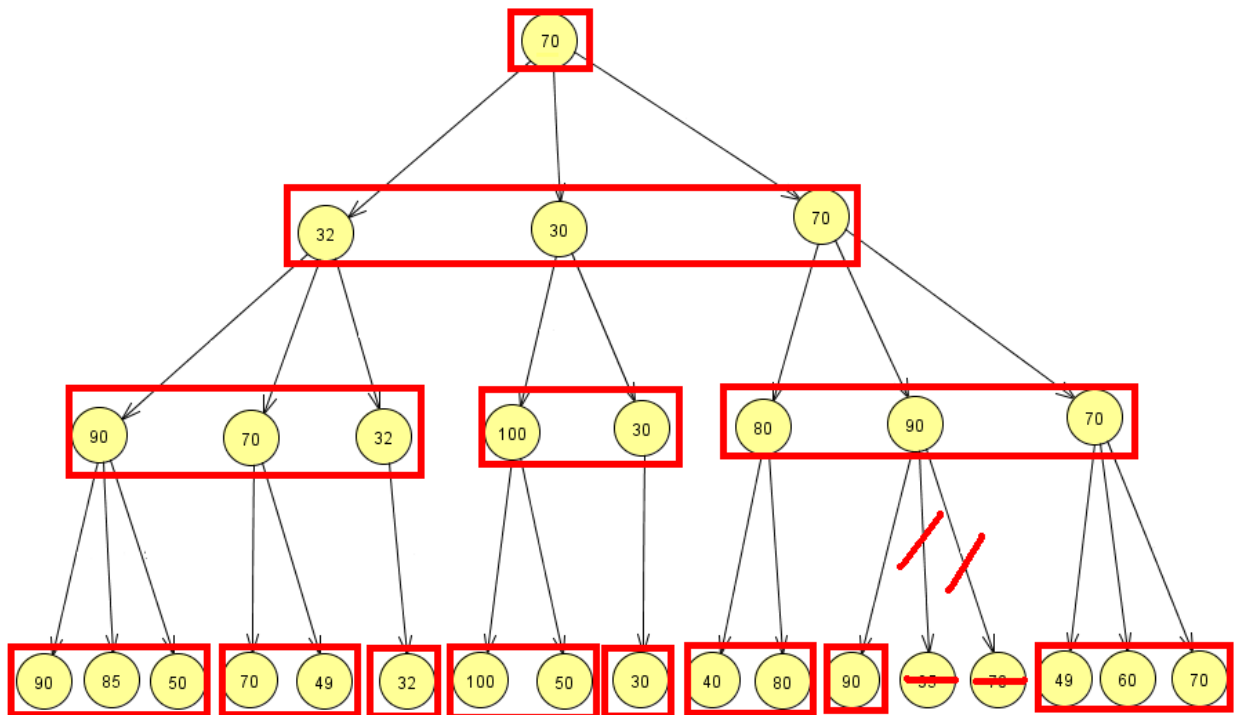
Step 7



Step 8

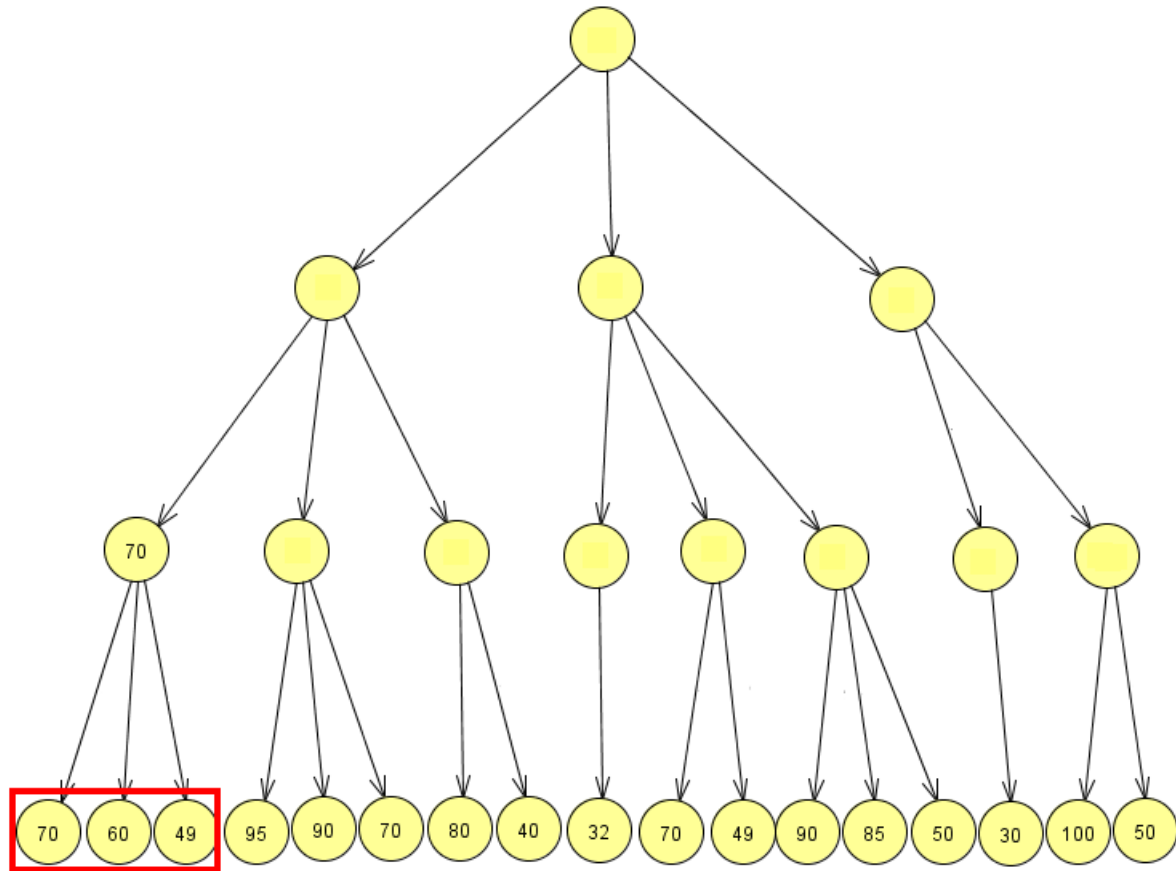


Step 9

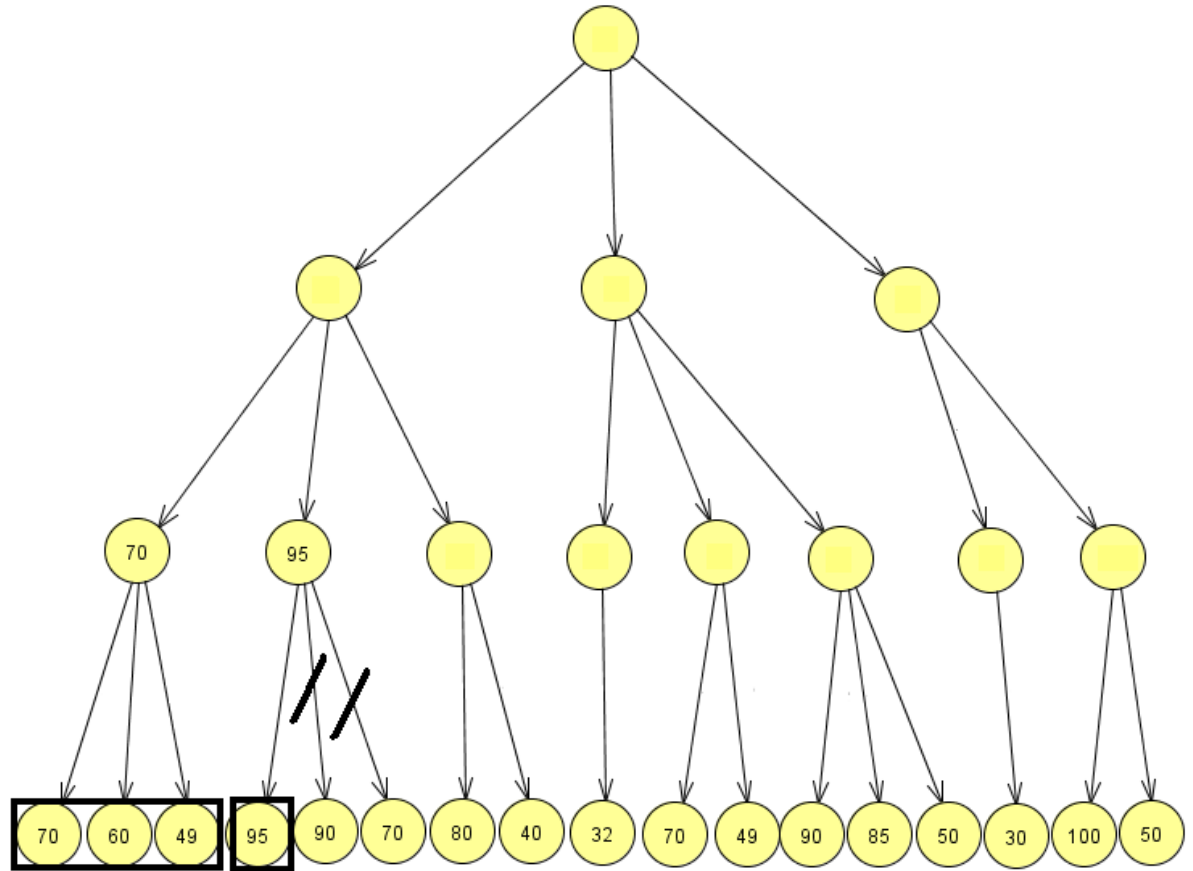


Solution 02: How would you re-order the nodes in order to get maximal pruning when using the alpha-beta algorithm for the given tree? Feel free to use the figure to show the re-ordering.

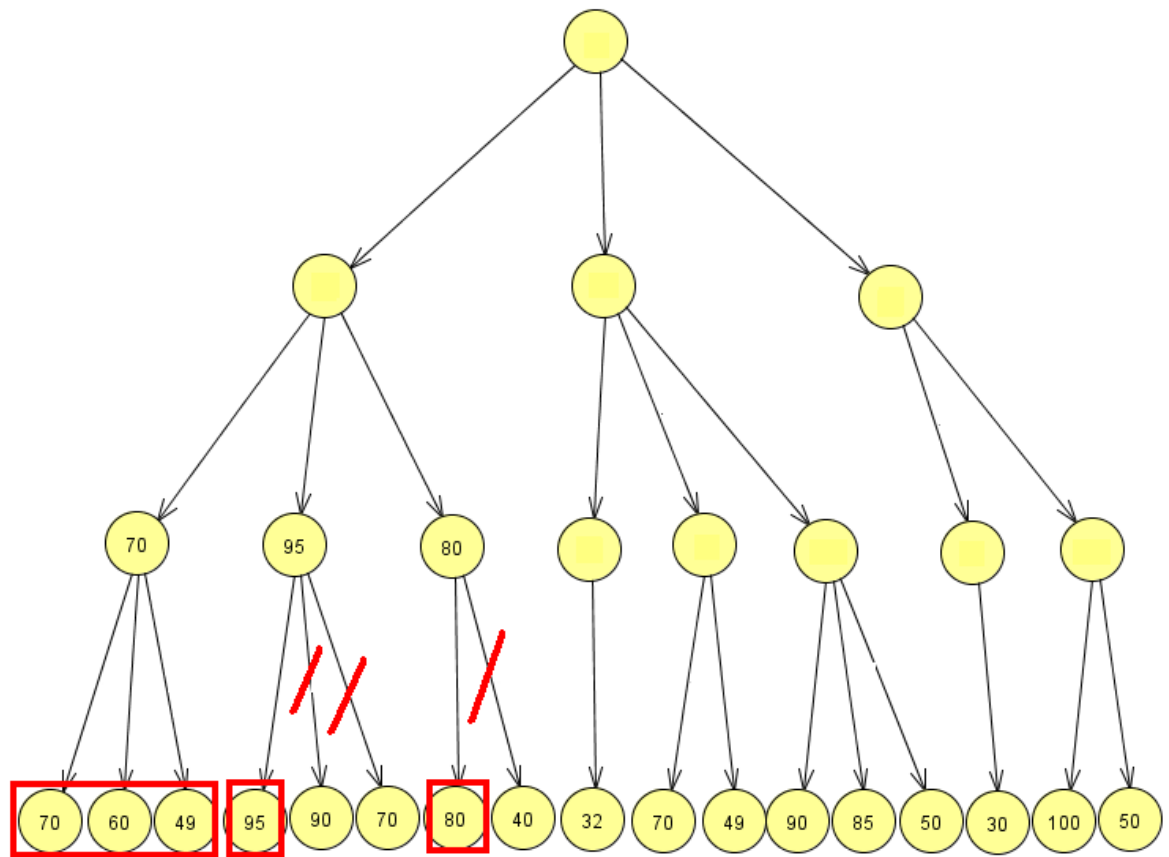
Solution: **Step 1**



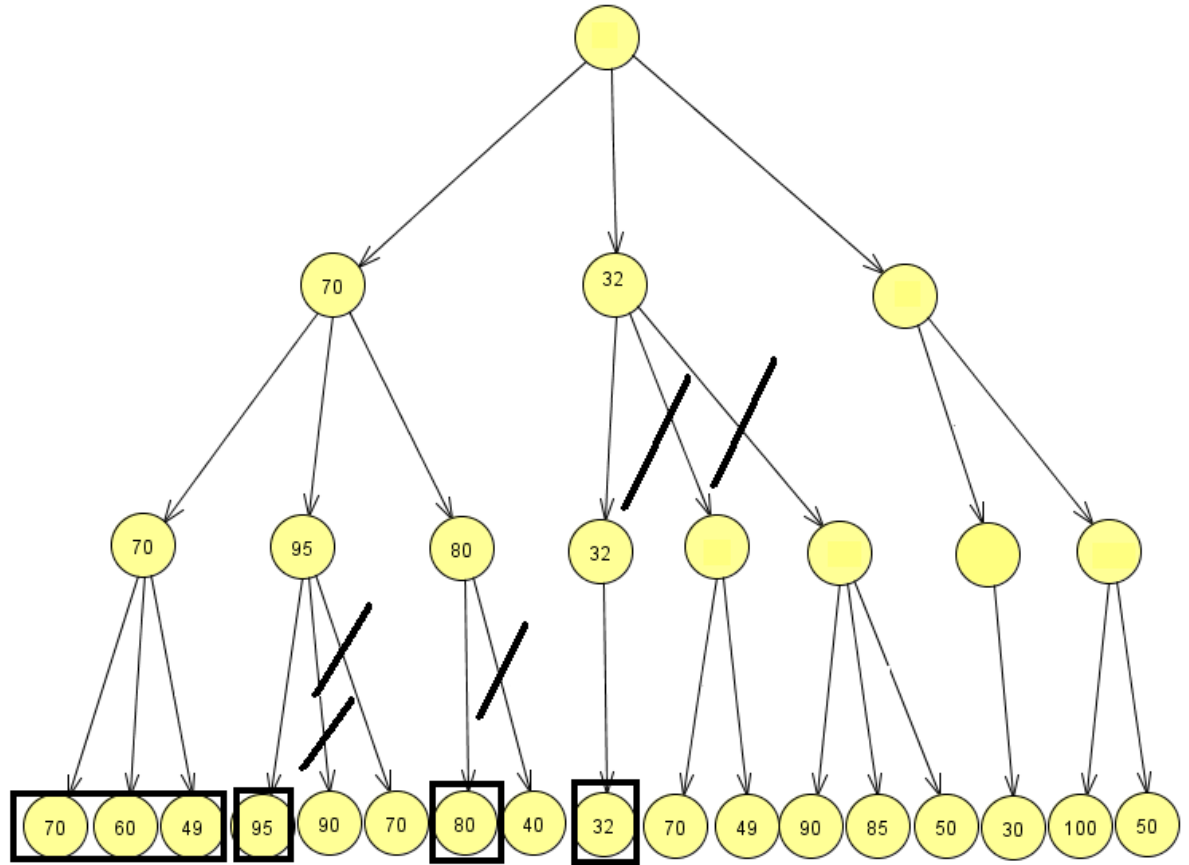
Step 2



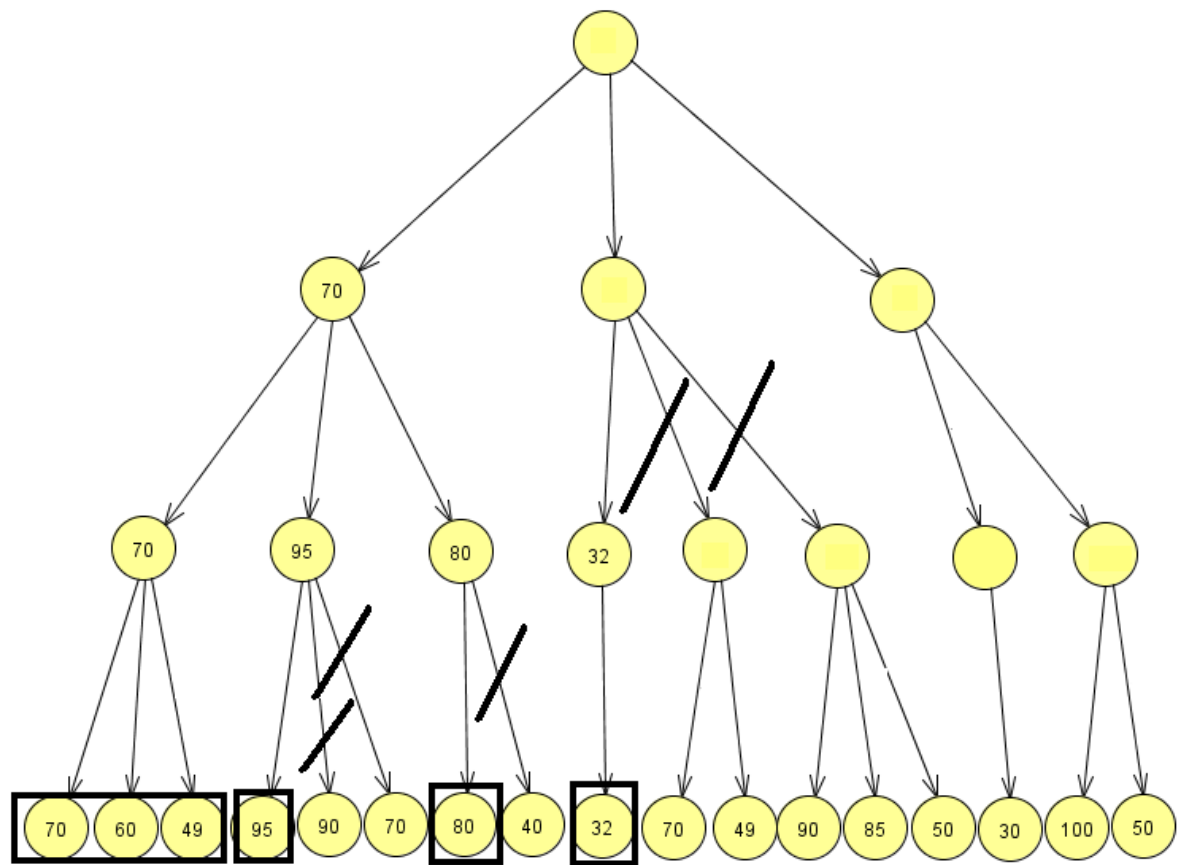
Step 3



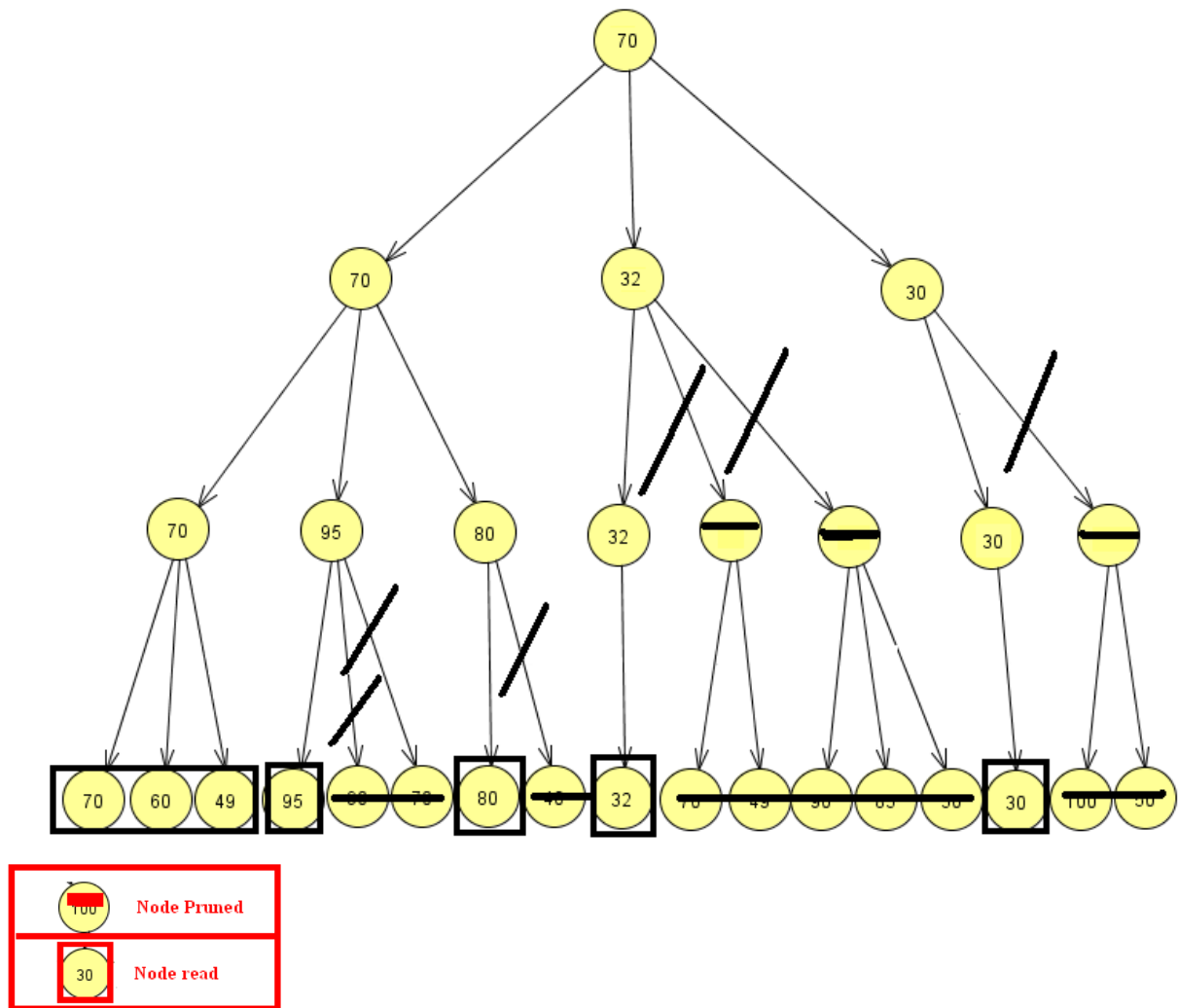
Step 4



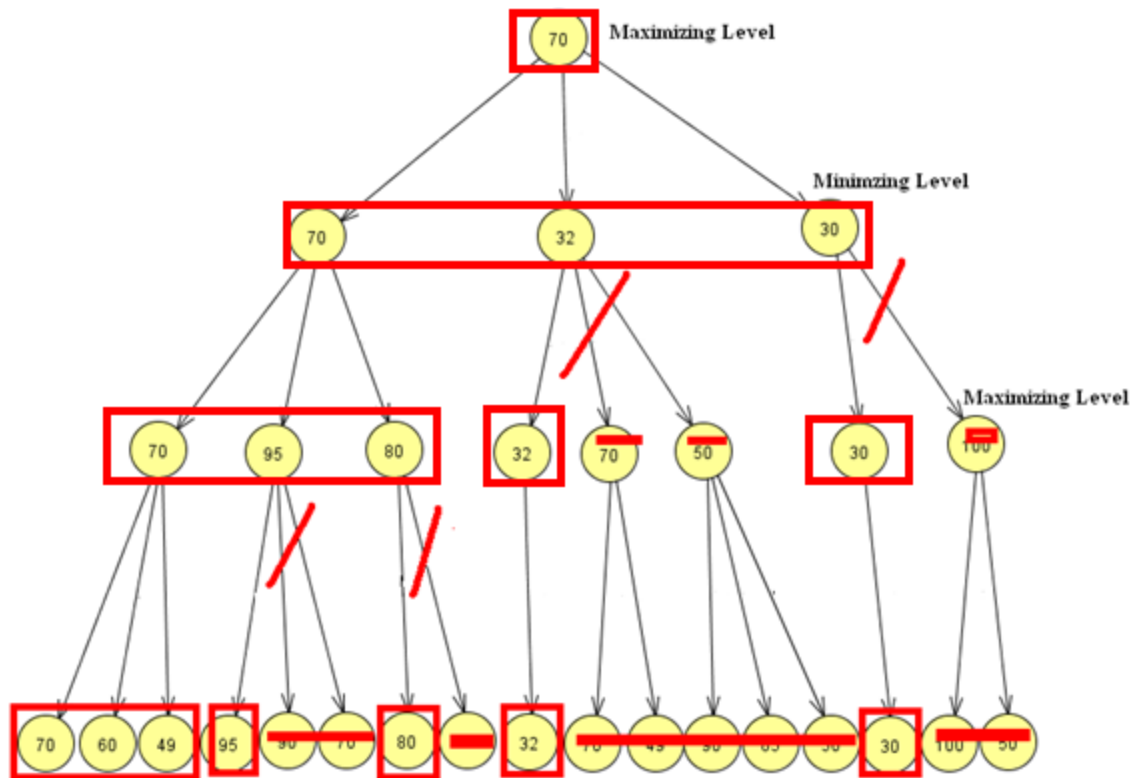
Step 5



Step 6



Step 7



Note: More than one solution of the assignment may exist as more than one pruning method exists. We may take the re-arrangement of nodes with root and sub-tree to get maximum pruning.