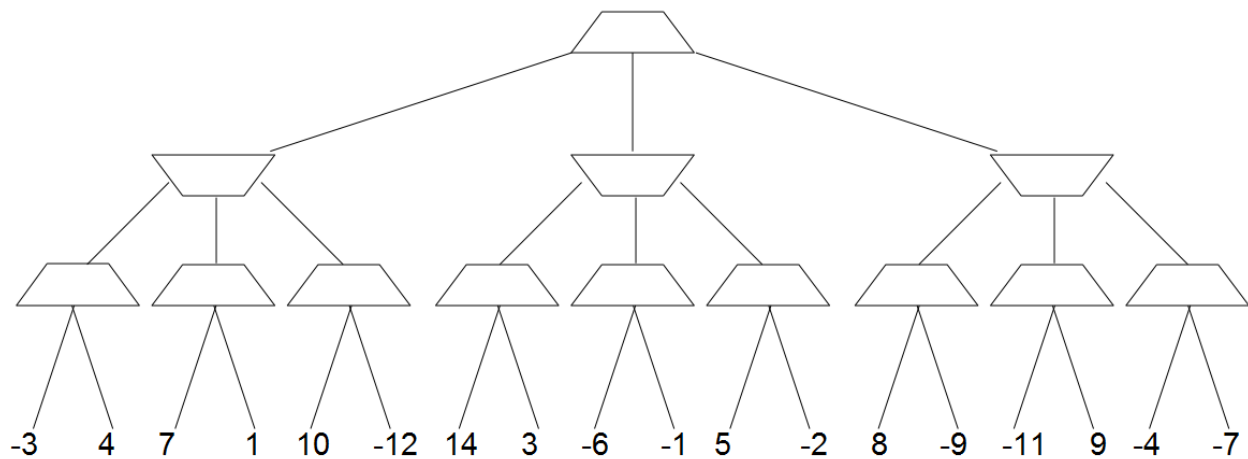


Please use \LaTeX to produce your writeups. See the Homework Assignments page on the class website for details.

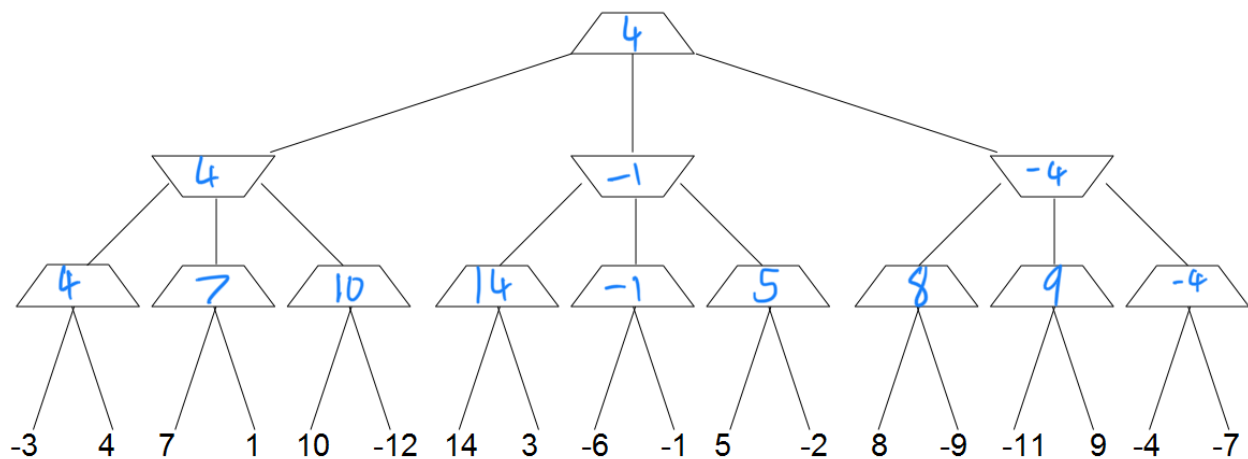
For these problems the easiest way to "write" your solutions is probably to download the file `gametree.png`, insert it into a google slide deck, then insert text to write your answers, export as a png and put that in your latex write up.

1 Minimax

For the following game tree, carry out minimax search. Give the value for each node.

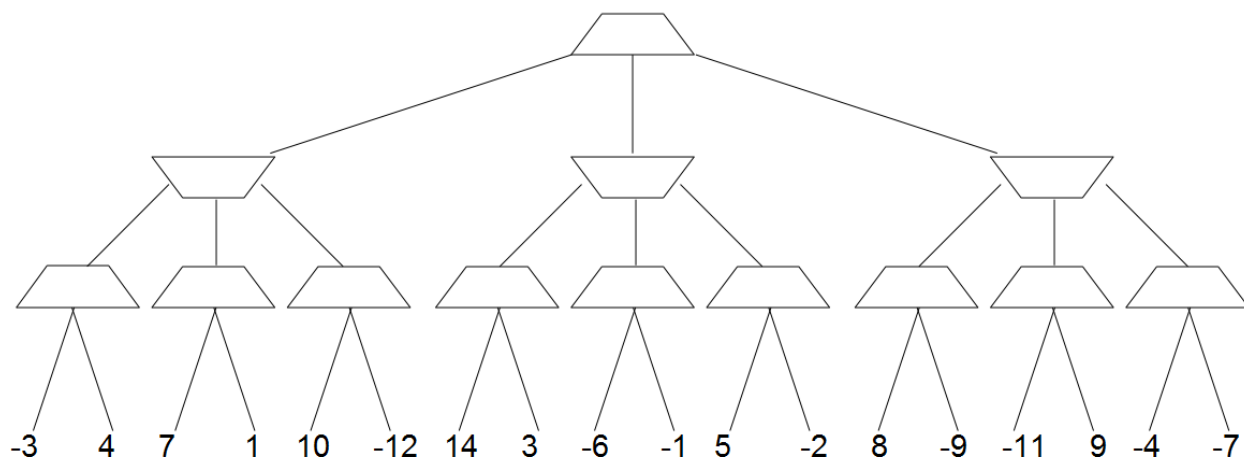


Solution:



2 Alpha-Beta pruning

For the same game tree perform alpha-beta pruning. Let $(\alpha, \beta)_i$ be the α - β values passed down an edge to node i , etc., for all the nodes with appropriate change of index or indices. Similarly, v_i is the value passed up edge i , etc.. Show the sequence of steps, by giving the (α, β) values on the way down, and the v values on the way up. See the example in the Practice Problems on the class website. https://www.cs.utah.edu/~dsbrown/classes/cs6300/practice/minimax_practice_sol.pdf Cross out the branches that are pruned.



Solution:

