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CPTS440
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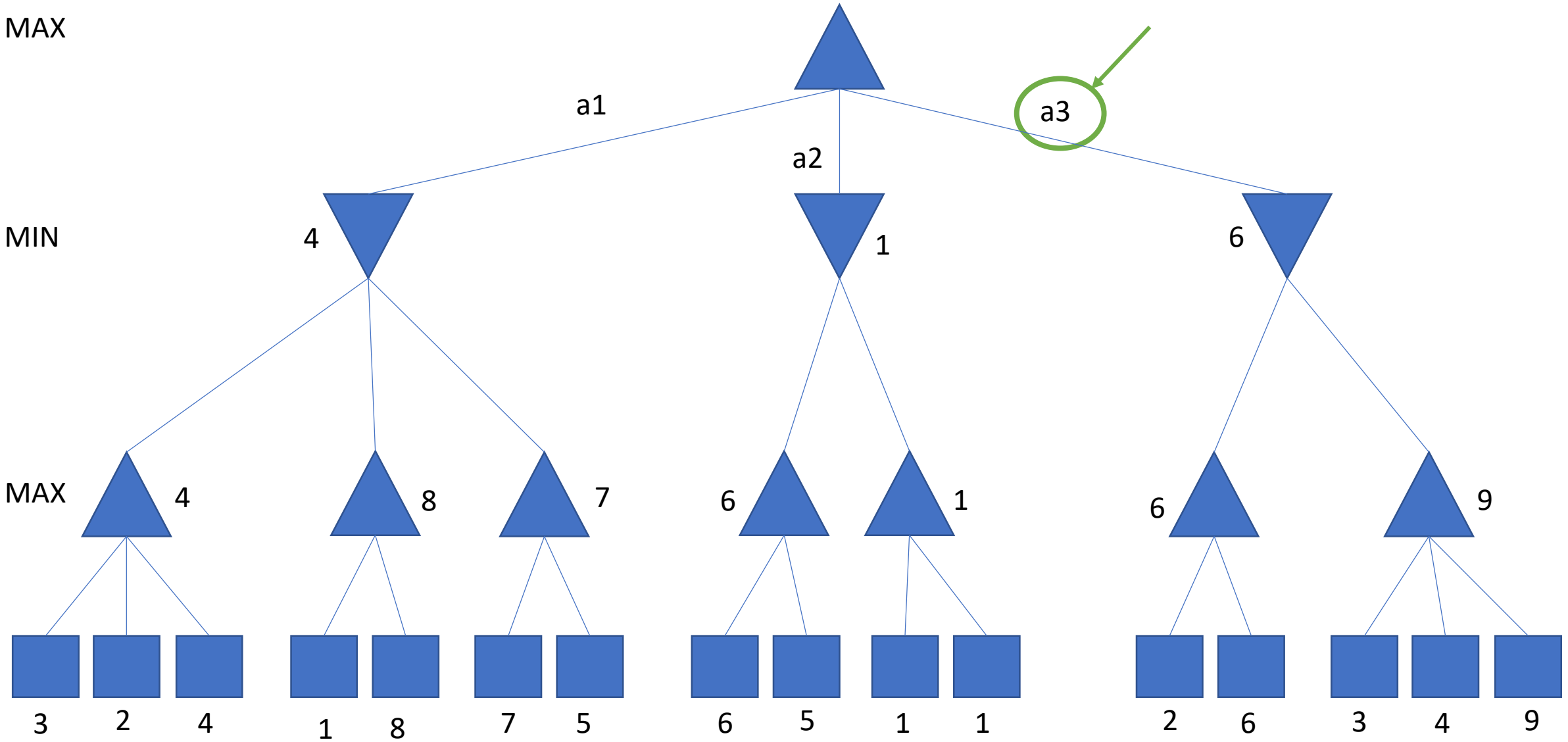
HW4

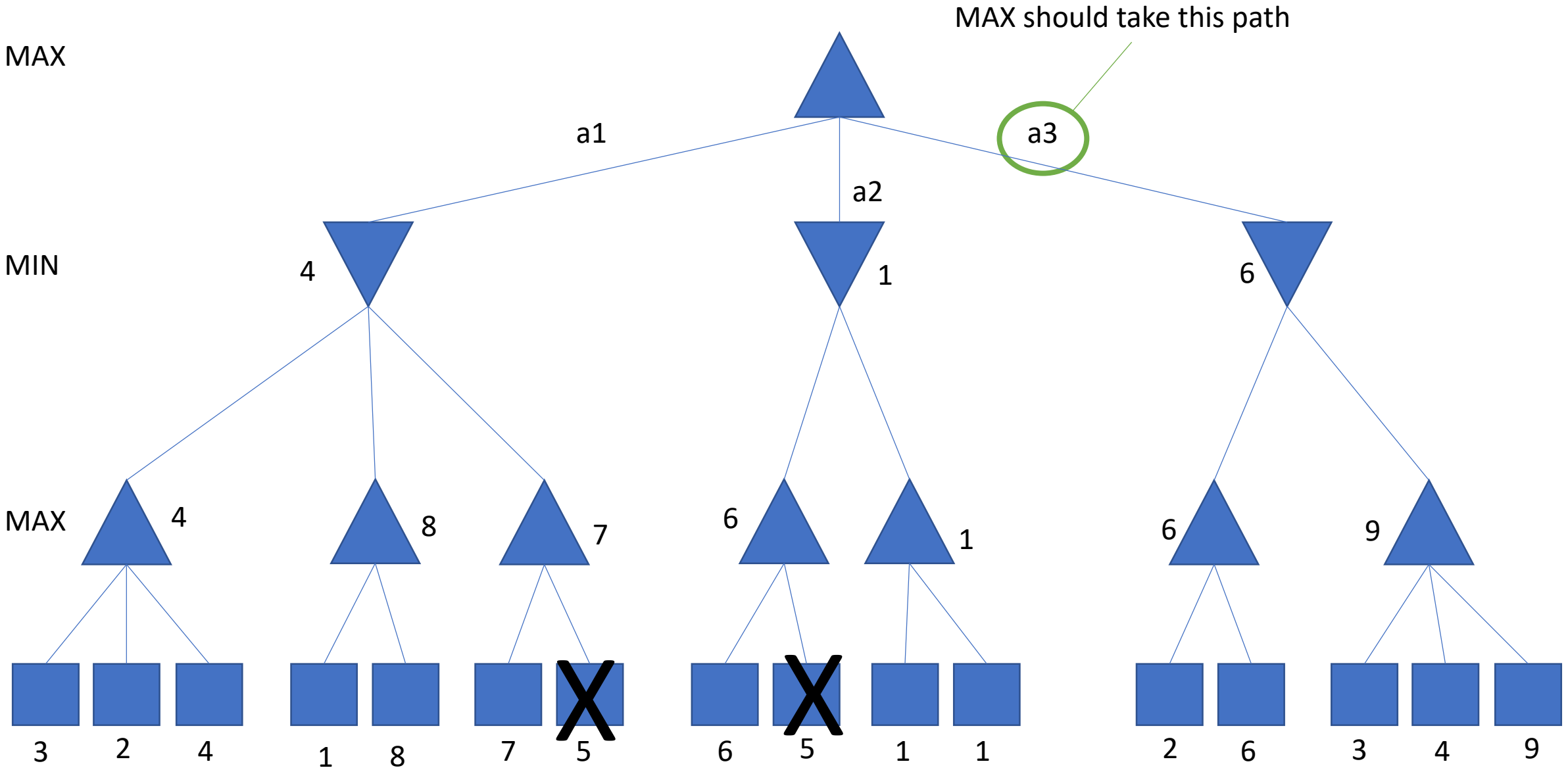
1. Consider the following game tree. Upward-pointing triangles are MAX nodes, downward-pointing triangles are MIN nodes, and squares are terminal nodes. Put an “X” over each nodethat is pruned, i.e., not evaluated (including all nodes in a pruned subtree). Put the final valuenext to all other nodes. Finally, indicate which action MAX should take: a1, a2or a3

1.A. Perform Minimax-Decision search on the above tree. Put the final value next to each node in the tree. Finally, indicate which action MAX should take: a1, a2or a3 (GRAPH ON NEXT PAGE)

MAX should take this path



1.B. Perform Alpha-Beta-Search on the above tree(don’t reuse your tree from part (a)). Put an “X” over each node(internal or terminal)that is pruned, i.e., not evaluated(including all nodes in a pruned subtree). Put the final value next to all other nodes. Finally, indicate which action MAX should take: a1, a2or a3(GRAPH ON NEXT PAGE)


MAX should take this path
MAX
MIN
MAX
a1
a2
a3
4
1
6
4
8
7
6
1
6
9
3
2
4
1
8
7
5
6
5
1
1
2
6
3
4
9