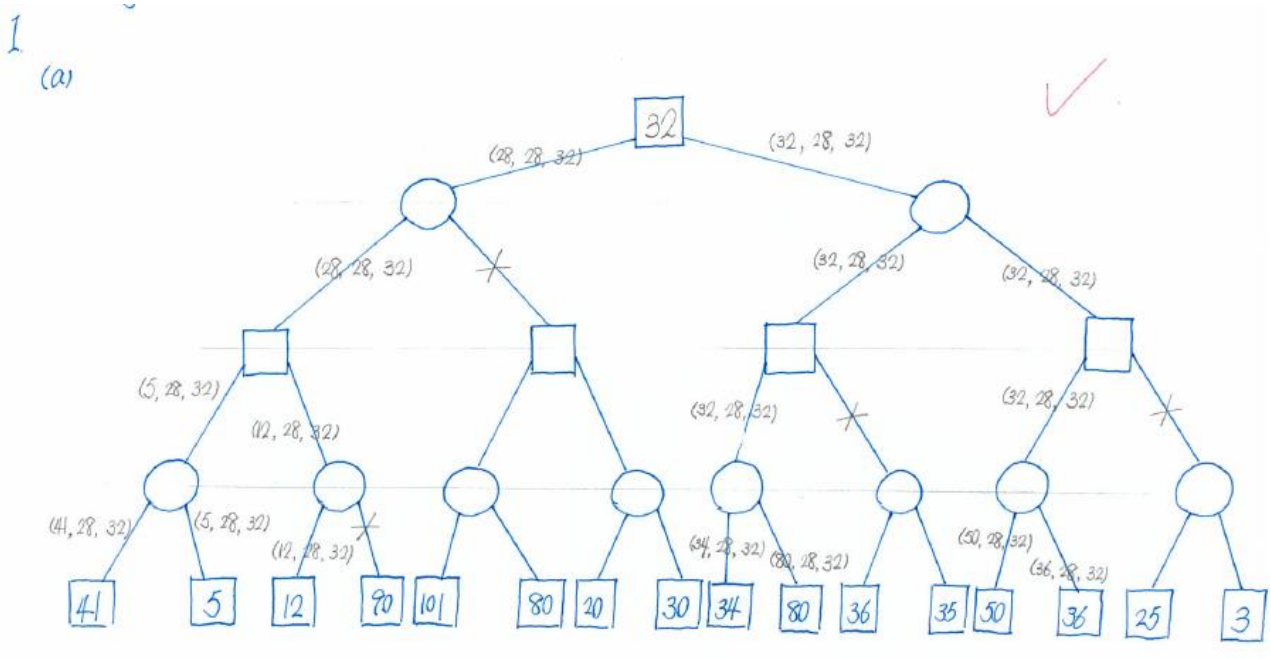
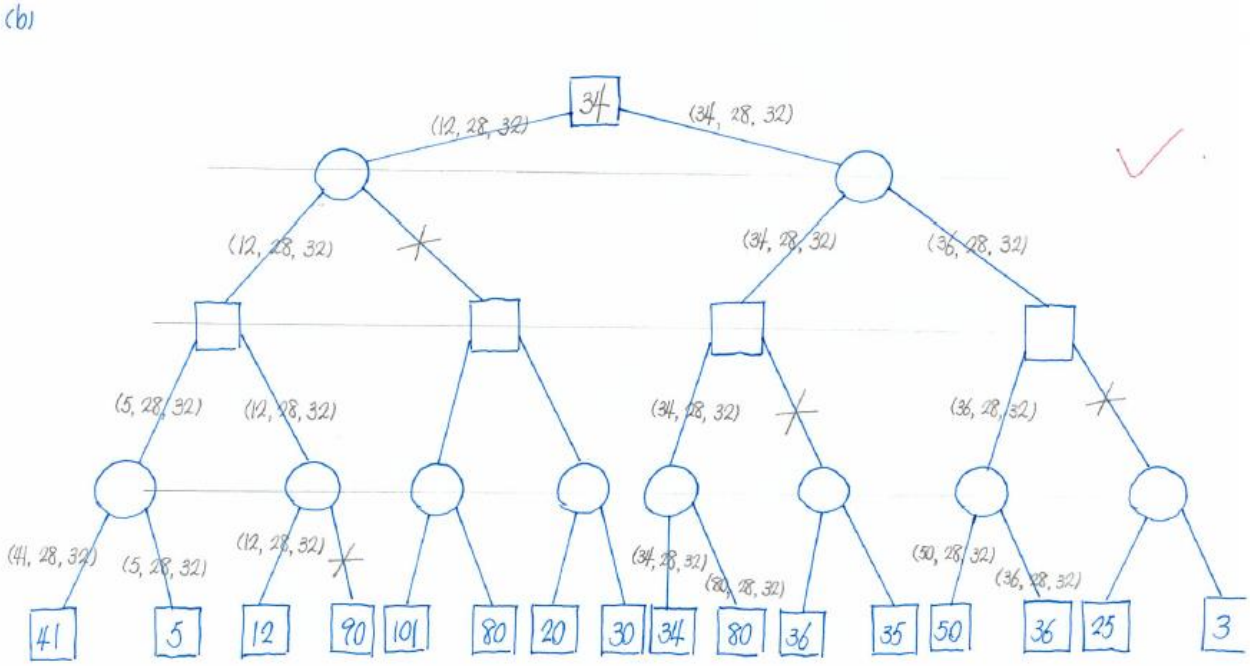
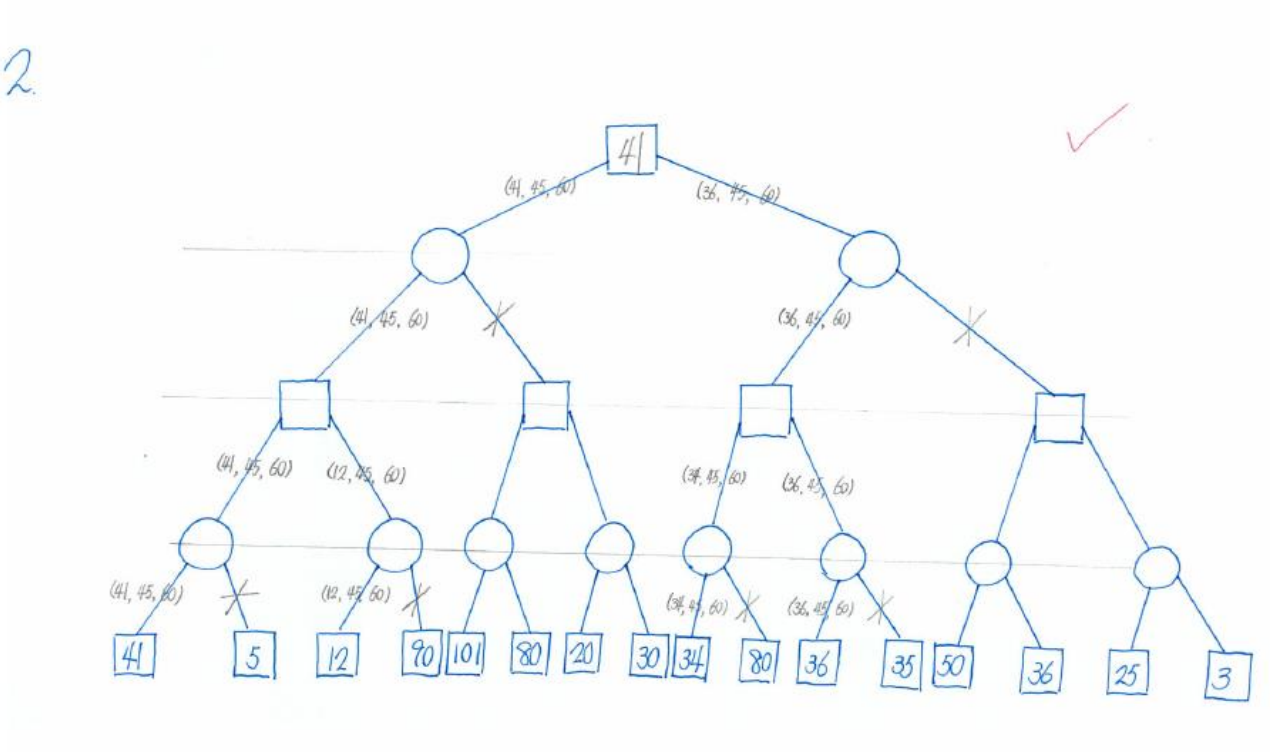
Homework and Pop Quiz #3 of the course: Theory of Computer Games.

1. For the following two-player search tree, assume that we only consider the window of (28, 32) starting from node a. Use mini-max alpha-beta search to solve it. (a) Use fail-hard version (F2' and G2') to solve it. (b) Use fail-soft version (similar to F3, which is a fail-soft version for nega-max). In this problem, you need to indicate the values (***v***, ***alpha***, ***beta***) for $v = F2(p, alpha, beta)$ on each edge. In addition, also need to indicate whether branches are cut off.





2. Do the problem 1 again with window (45, 60) for fail-soft only.



3. Do the AB-Dual* for the above tree (that is, MTD(− ∞)).