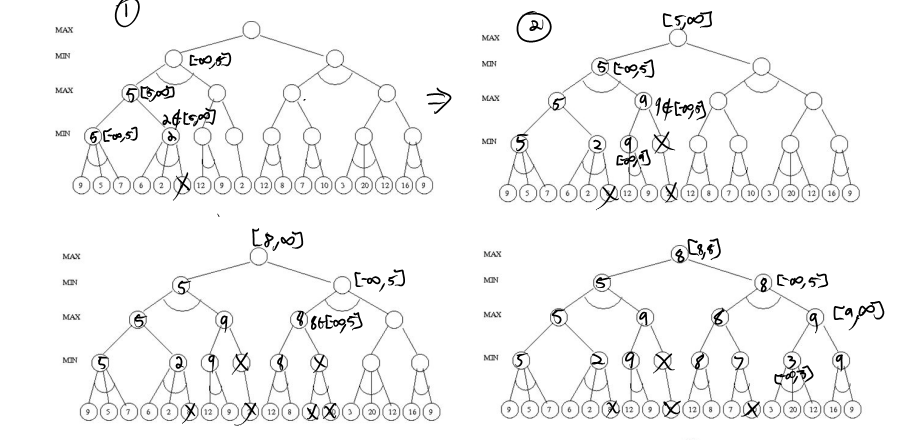
Paul Lintilhac

Problem Set 2 – for Professor Davis

Problem 1:



Thus the minimax value at the root node is 8.

Problem 2:

i)

ii)

iii)

iv)

v)

vi)

vii)

Problem 3:

Our clauses in CNF are:

Starting with A=TRUE, we have:

Next, we choose B=TRUE:

Next, C=TRUE:

Now D=TRUE because it is a singleton:

So we try E=TRUE:

Thus this set of values is not satisfiable.

Instead we try E=FALSE:

Not satisfiable.

Therefore we backtrack. Since D was a singleton, we must go all the way back to C=FALSE:

D is a singleton and therefore must be false:

Now E is a singleton so it must be false:

And thus F=FALSE

Therefore the sentence is satisfied when

A=TRUE

B=TRUE

C=FALSE

D=FALSE

E = FALSE

F=FALSE