FAI HW2

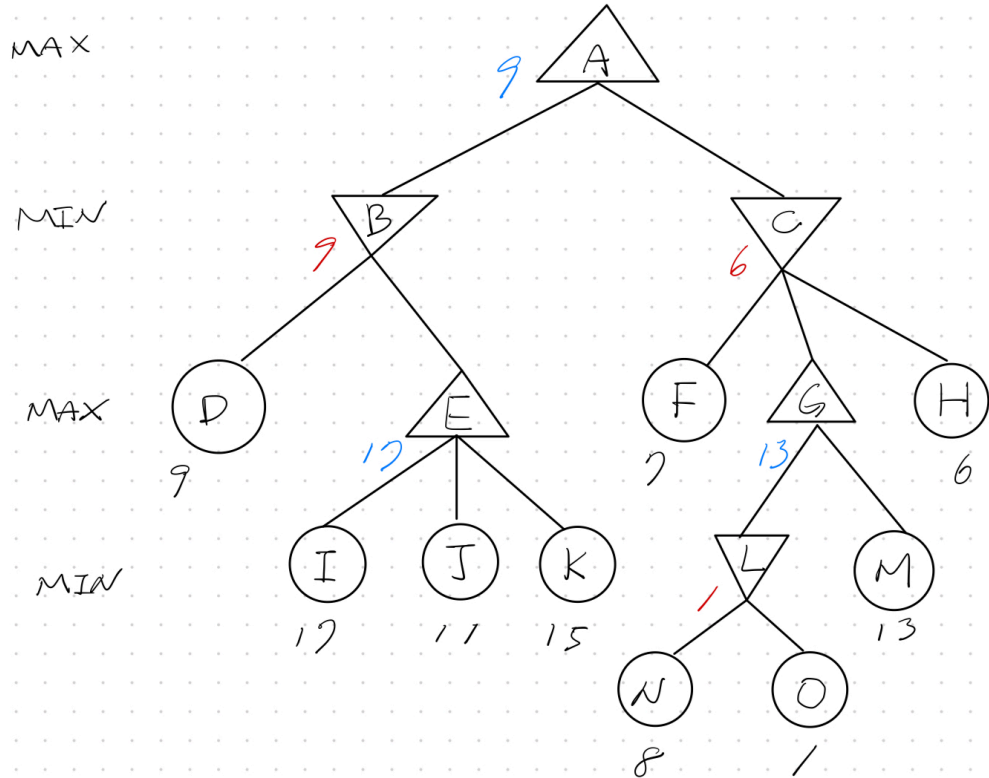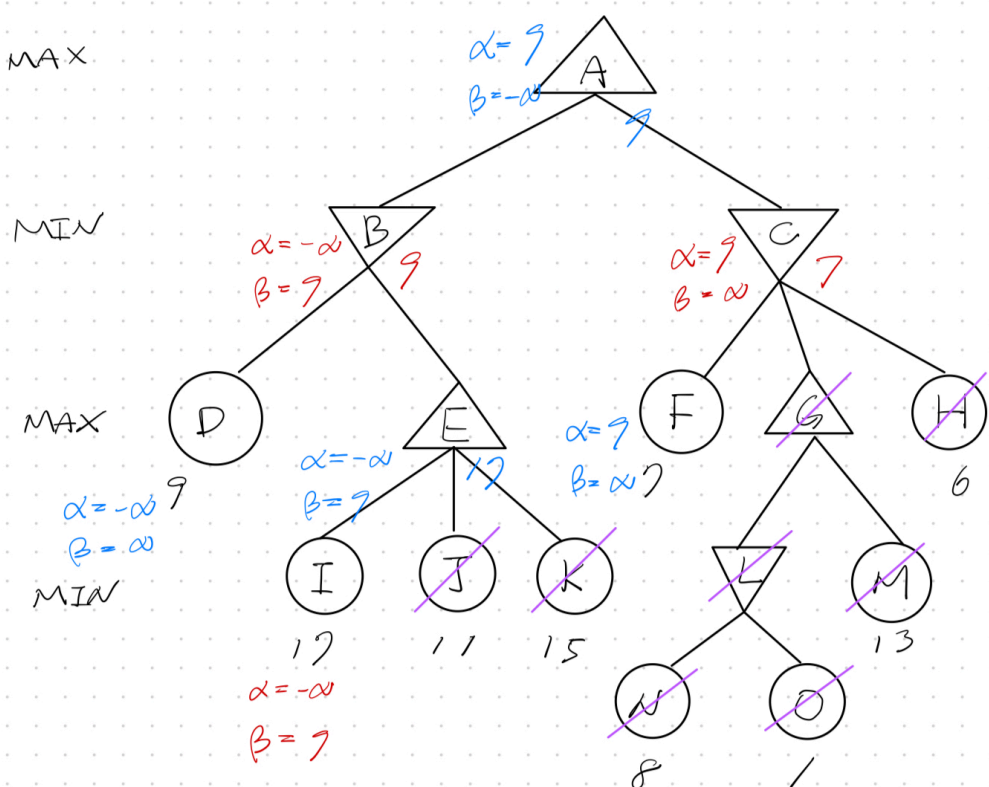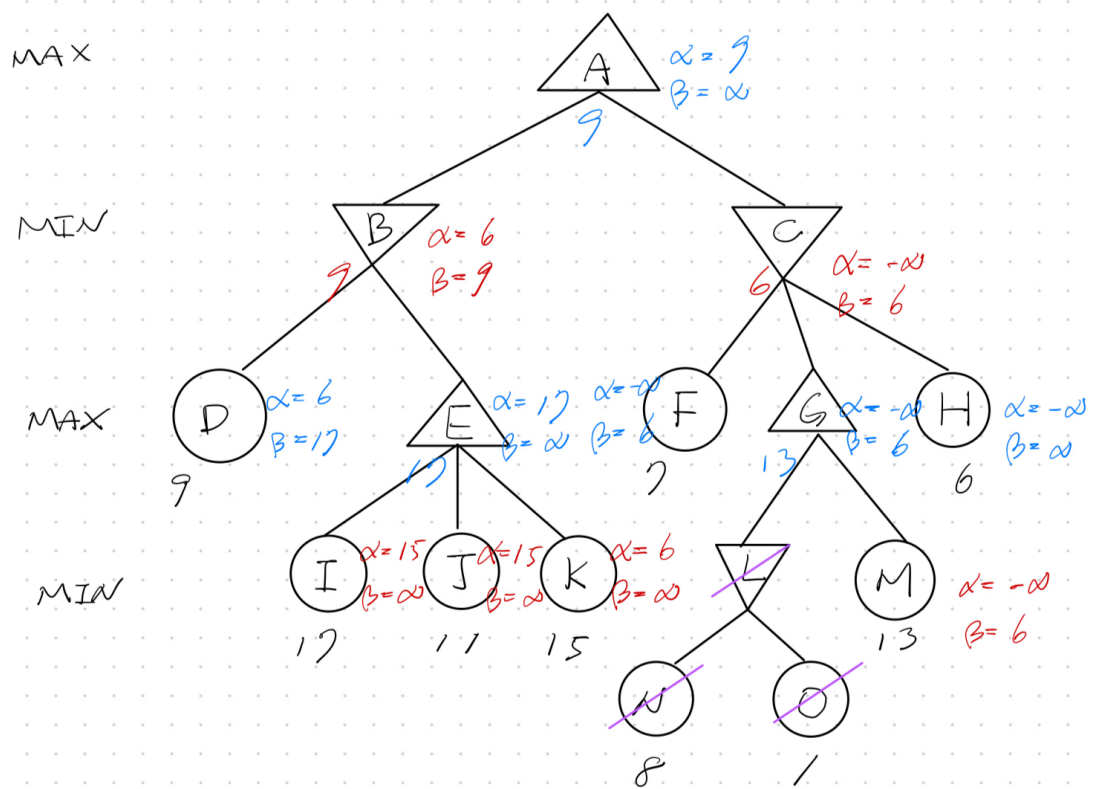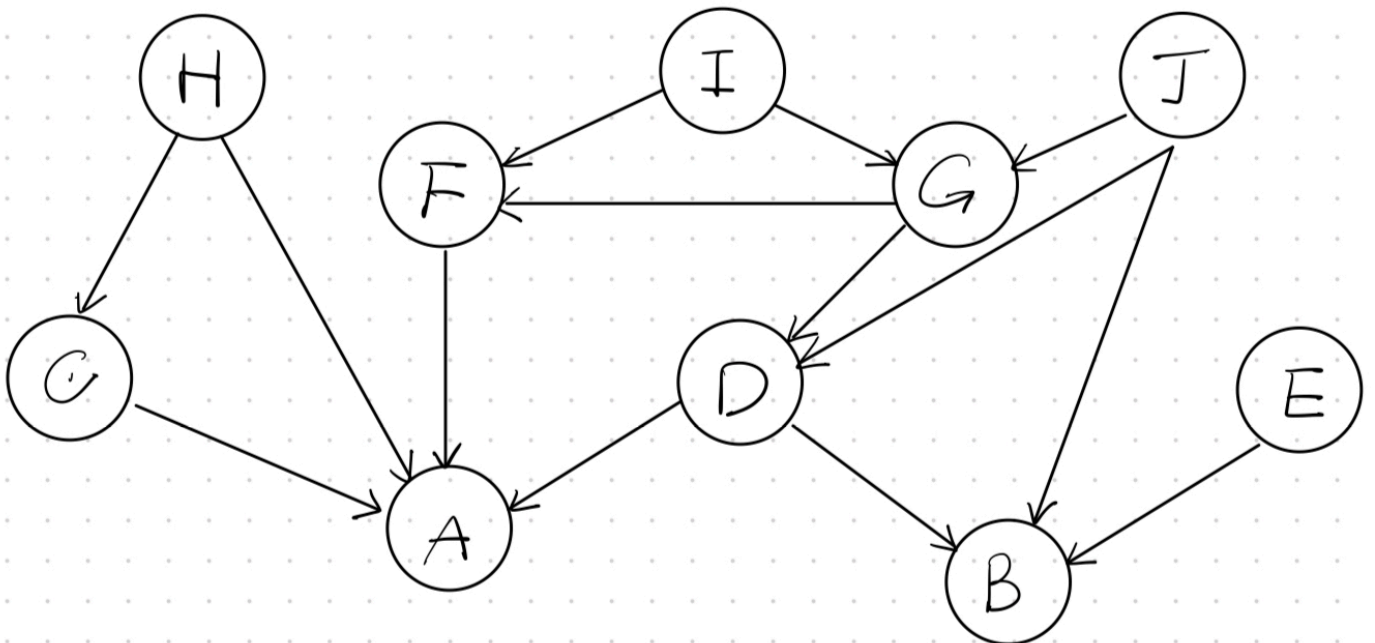## Problem 1

a.

b.

c.

Problem 2

a. $P(A|C, D, F, H, I)P(B|D, E, G, J)P(C)P(D|I)P(E|J)P(F)P(G|I)P(H|I)P(I)P(J)$

b.

c. $P(C = f)P(R = f|C = f)P(S = t|C = f)P(W = t|S = t \wedge R = f)$

$= 0.5 * 0.8 * 0.5 * 0.9$

Problem 3

Because there is a cycle in the given Bayesian Network, we have to consider multiple paths for some variables.

a. A, C, D, G, I, J

b. L

Problem 4