

Homework 4 Solutions

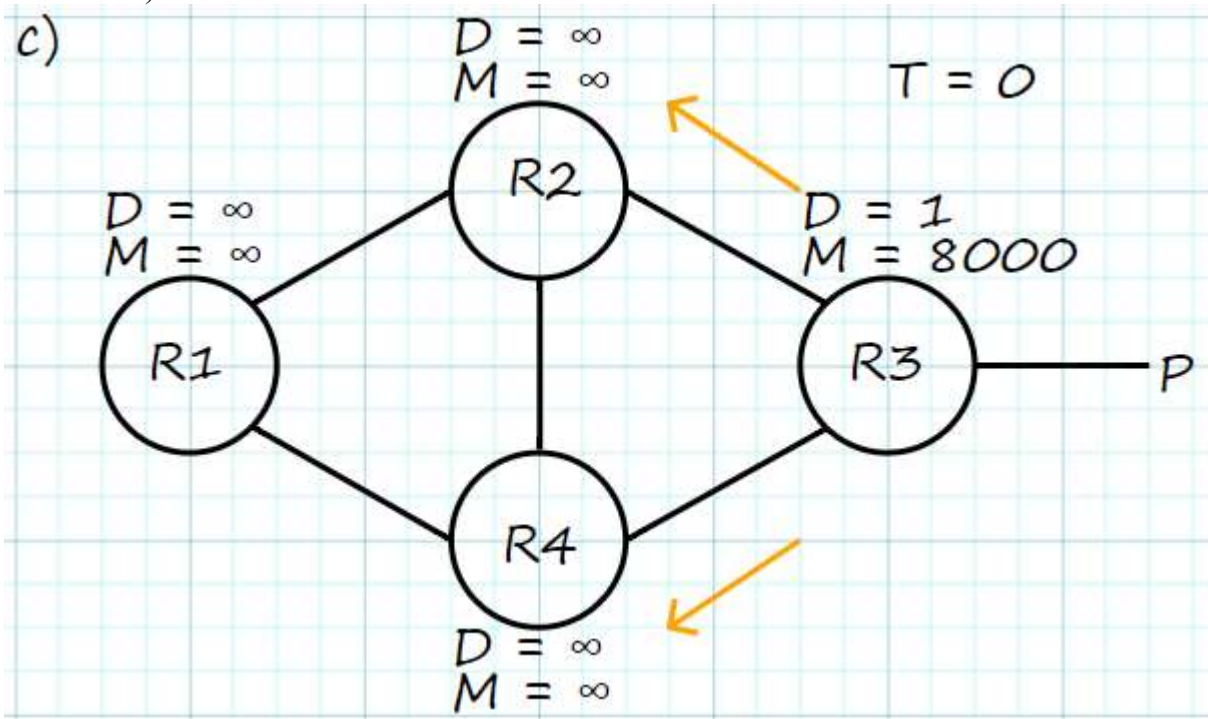
Problem 1.a)

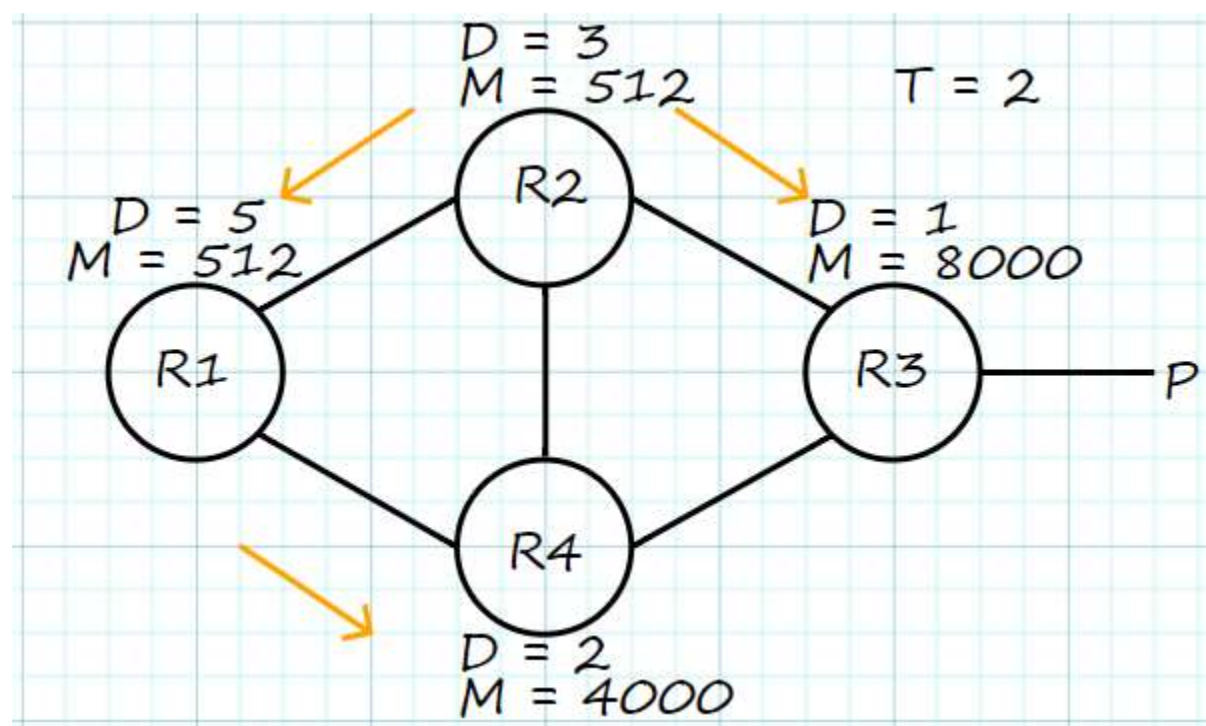
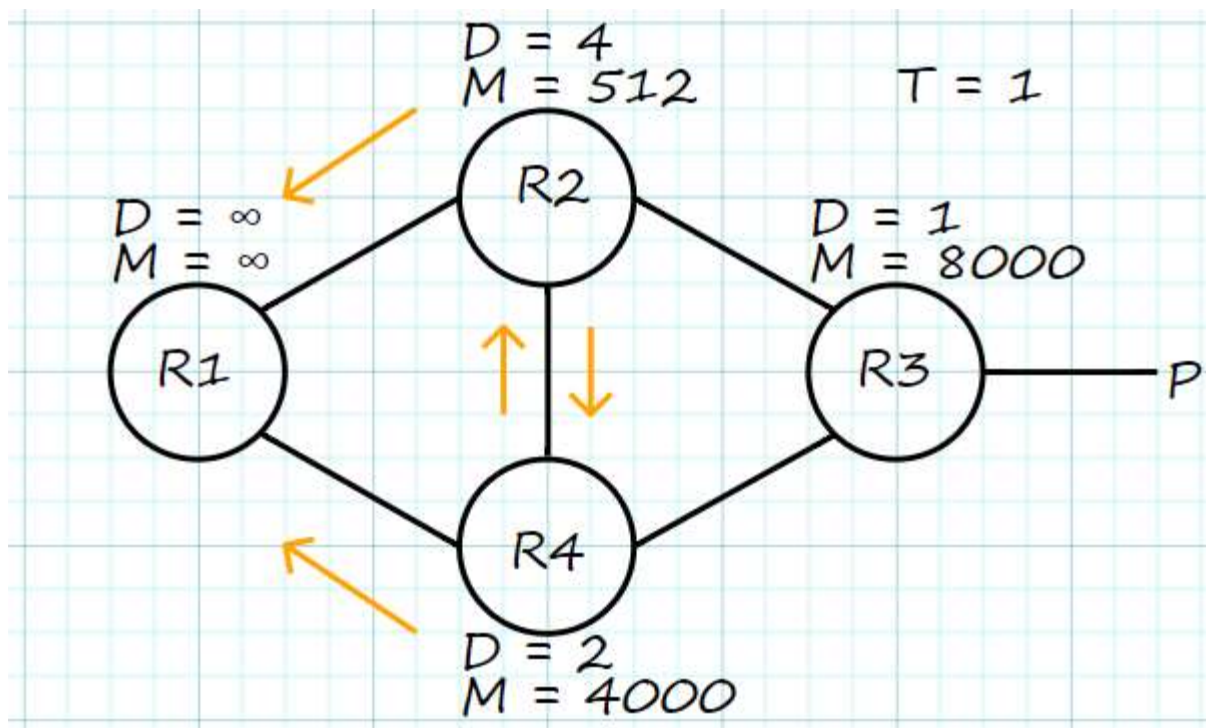
a) Shortest path from R1 to P: $R1 \rightarrow R2 \rightarrow R4 \rightarrow R3 \rightarrow P$
Smallest Packet w/o Fragmentation: 512 bytes

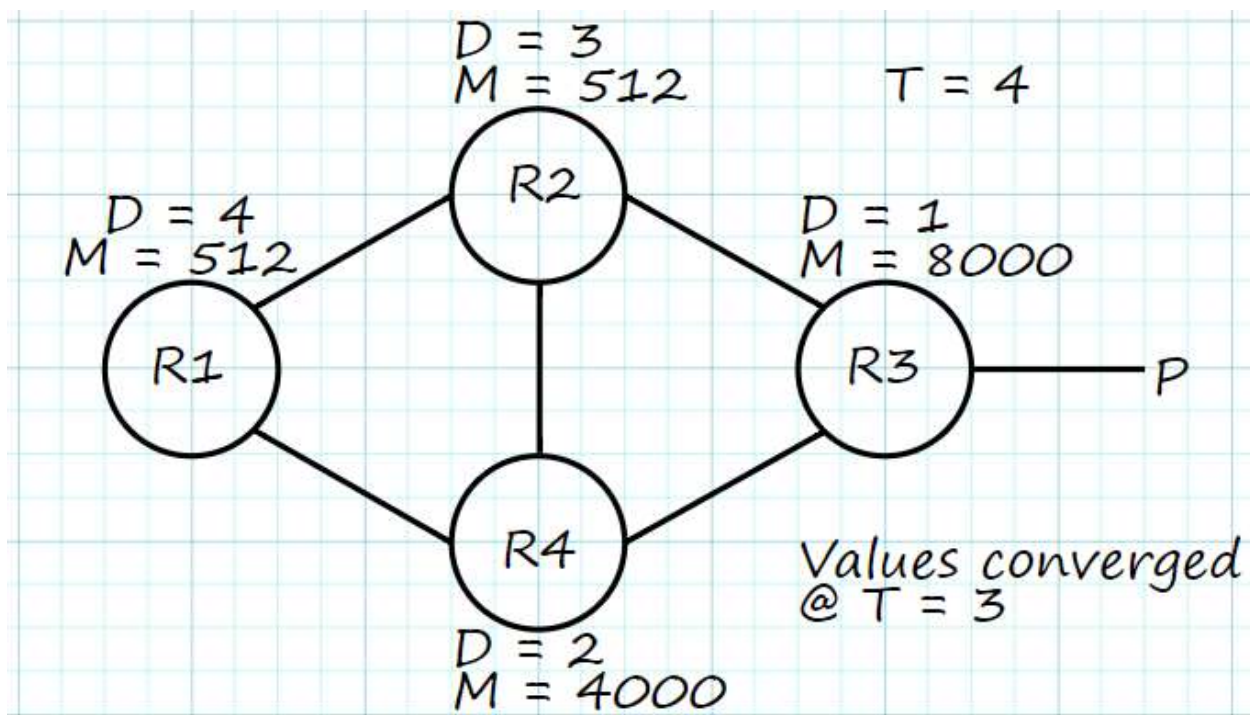
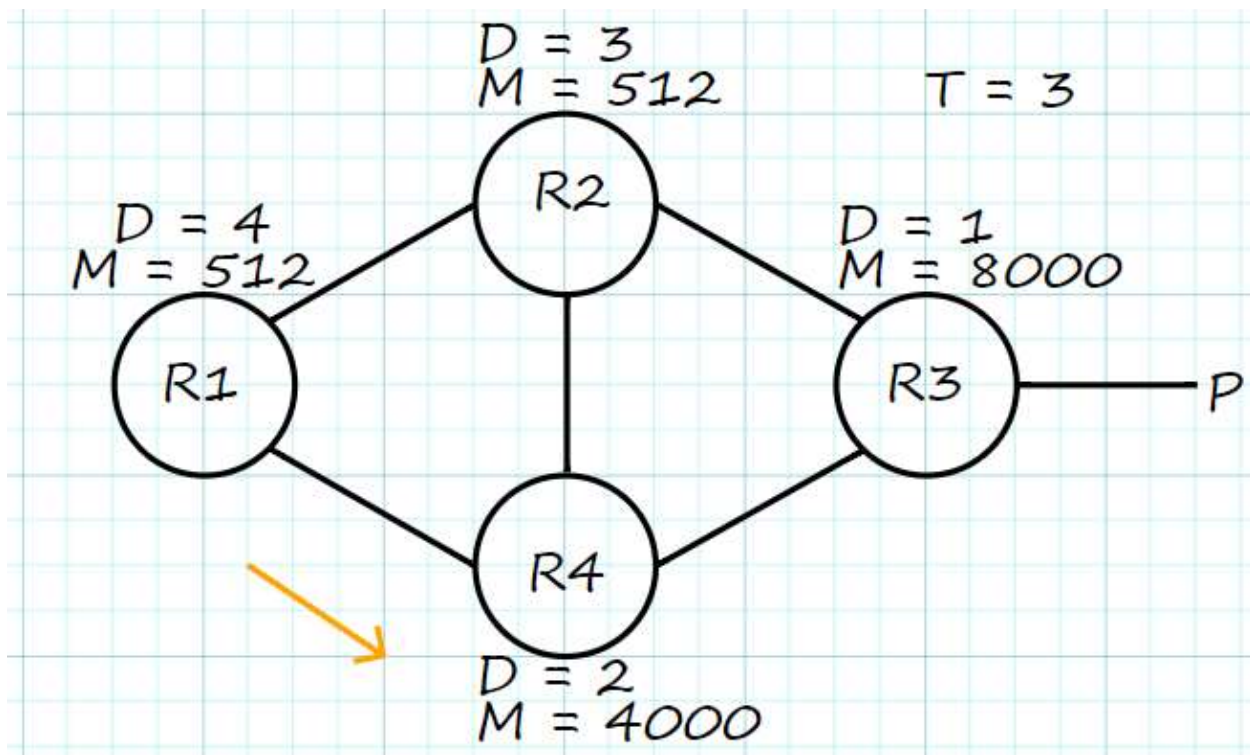
Problem 1.b)

b) $Distance(P, R) = \min(Distance(P, N) + Distance(R, N))$
Let $X = \operatorname{argmin}(Distance(P, N) + Distance(R, N))$
 $MinMaxPacketSize = \min(MinMaxPacketSize(P, X), MinMaxPacketSize(R, X))$

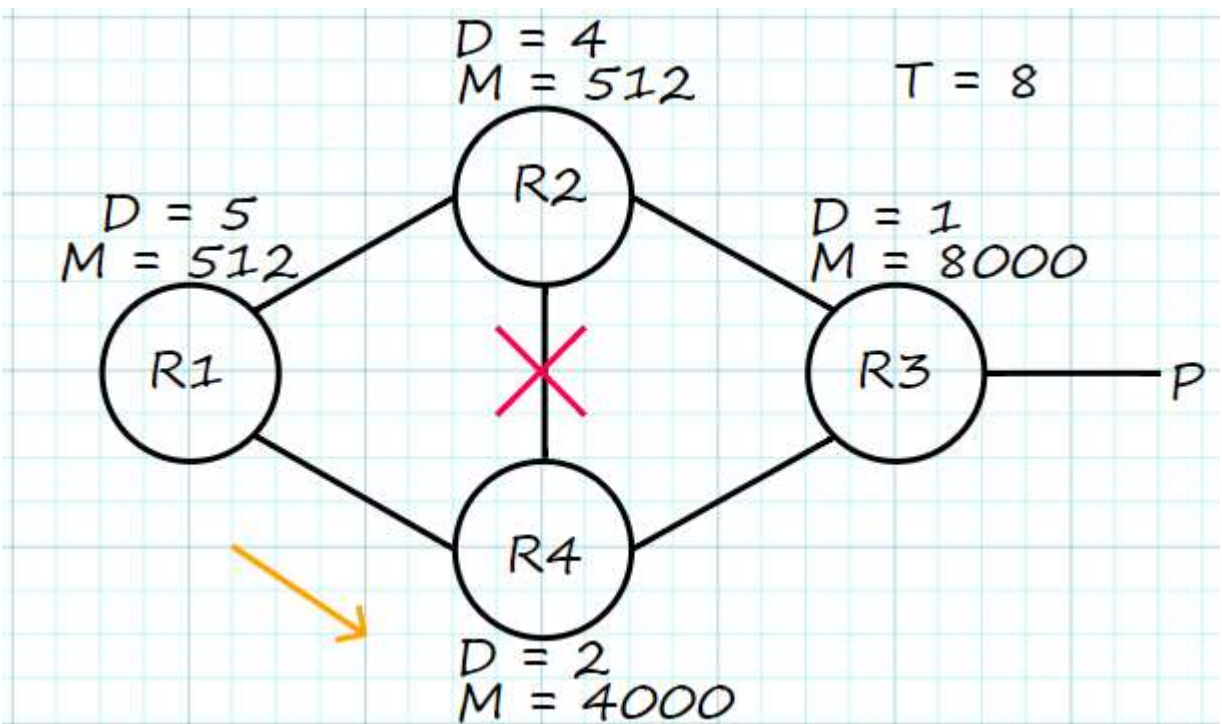
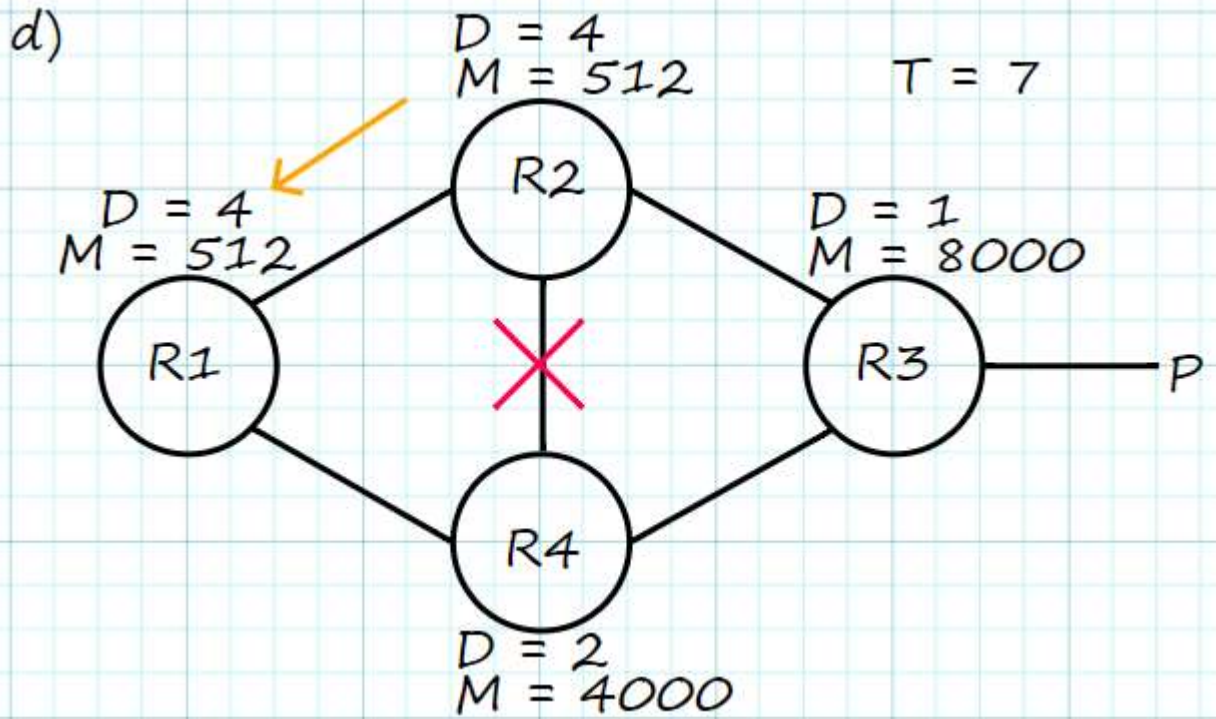
Problem 1. c)

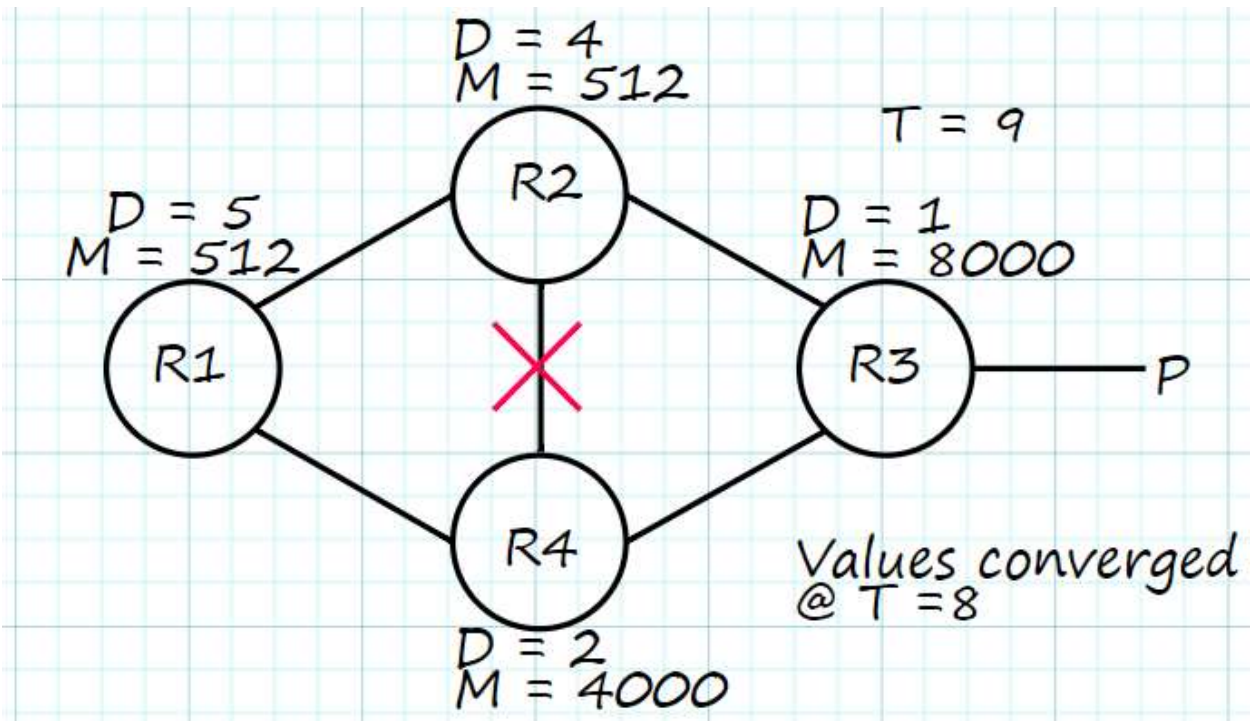






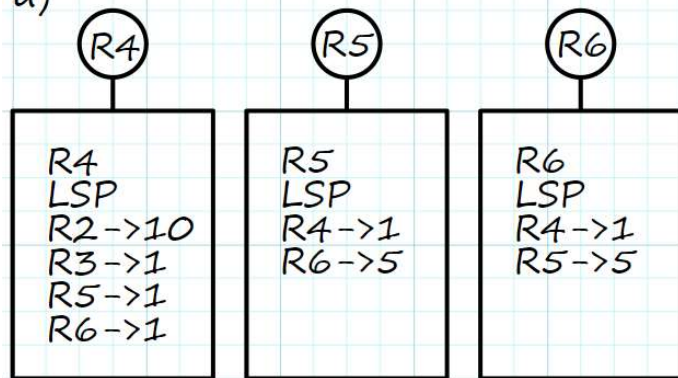
Problem 1.d)





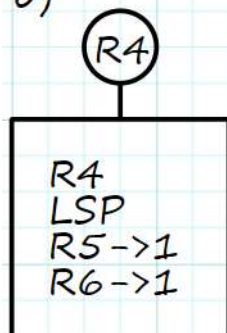
Problem 2.a)

a)



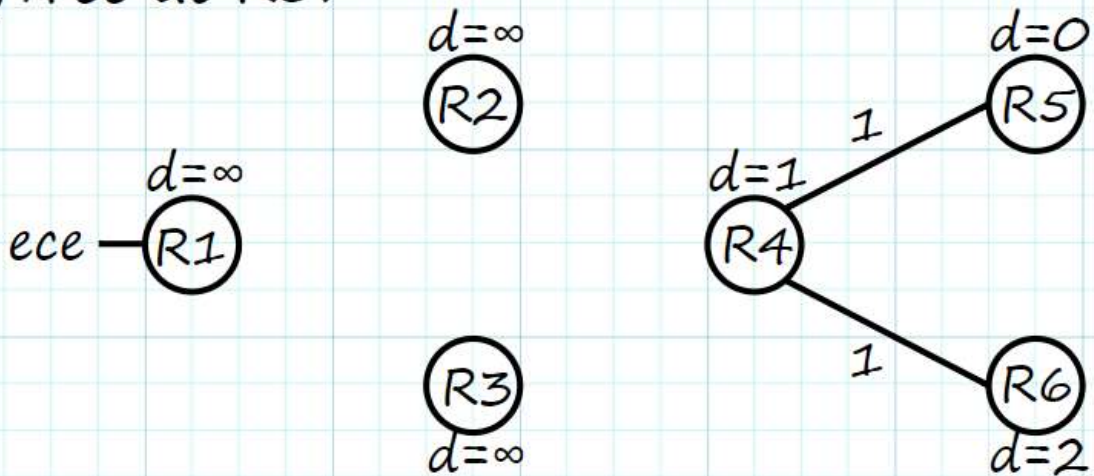
Problem 2.b)

b)

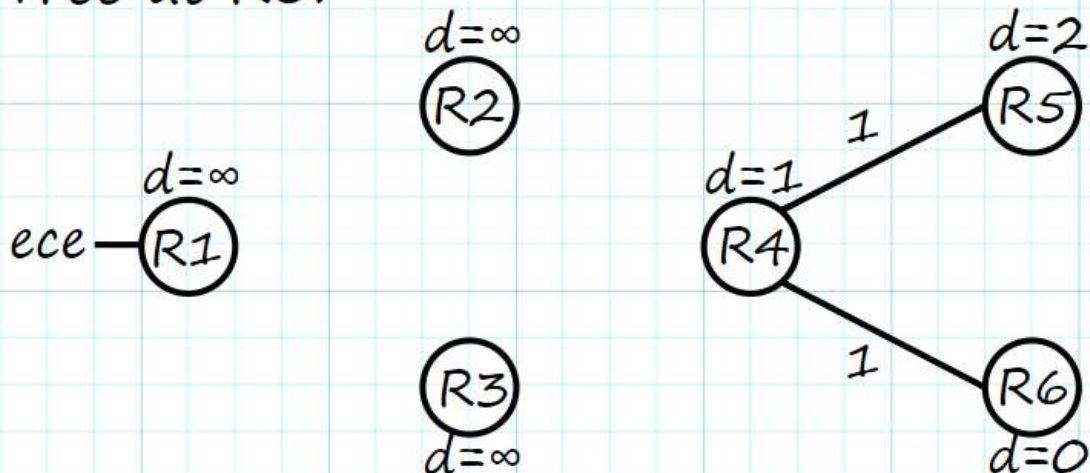


Problem 2.c)

c) Tree at R5:



Tree at R6:



The updated LSP from R4 will update the global view. After Dijkstra's is run, ece will have a distance of ∞ which is unreachable