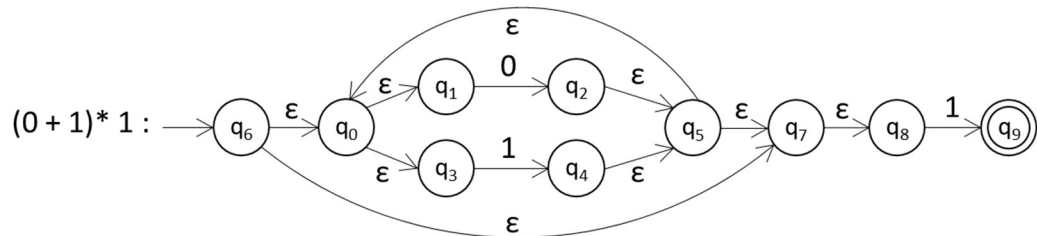
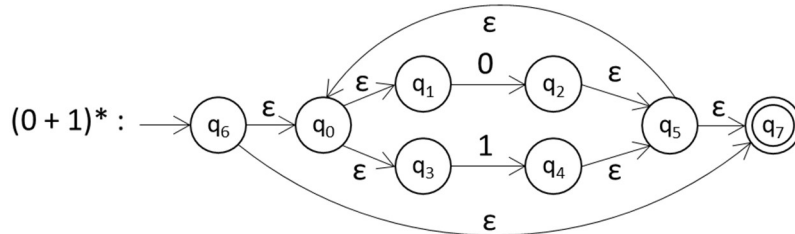
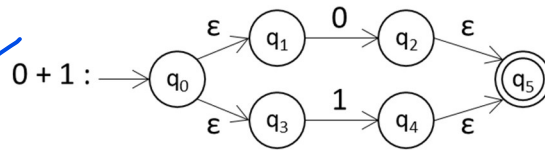
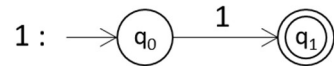


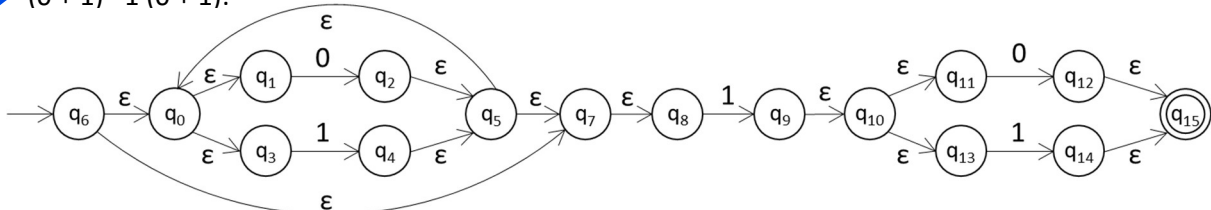
Regular Expressions to Automata

Convert the following RE to Automata

$(0 + 1)^* 1 (0 + 1)$



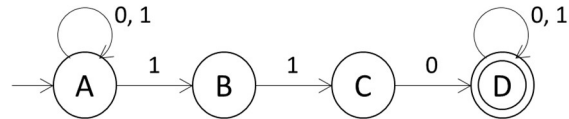
$(0 + 1)^* 1 (0 + 1)$:



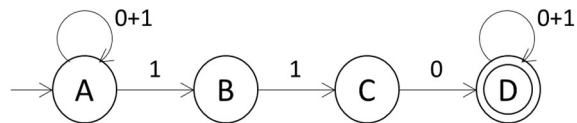
Automata to Regular Expressions

Convert the following automata to RE by eliminating states

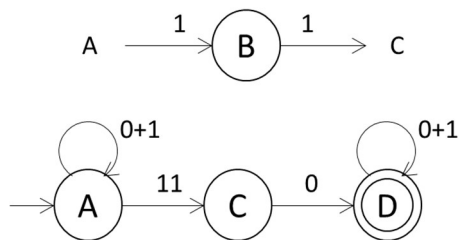
1)



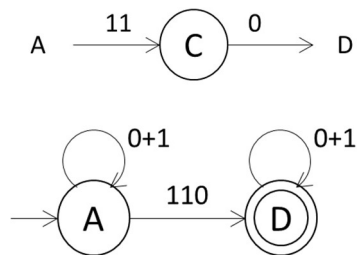
Given automata:



Eliminating B:



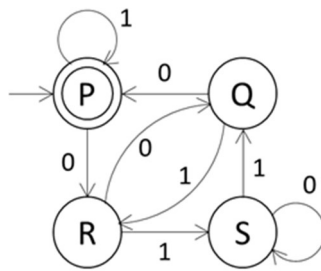
Eliminating C:



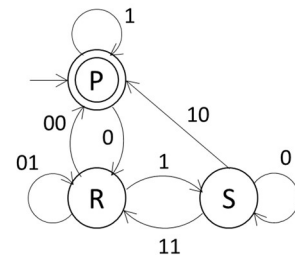
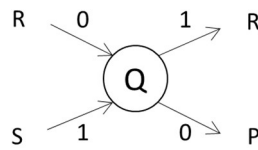
$$RE = ((0+1) + 110(0+1)^*\phi)^*110(0+1)^*$$

$$RE = (0 + 1)^* 110 (0 + 1)^*$$

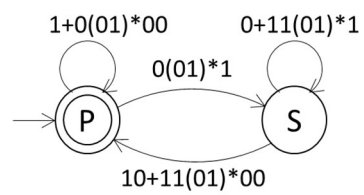
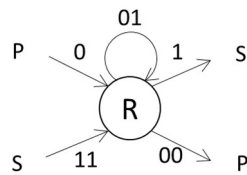
2)



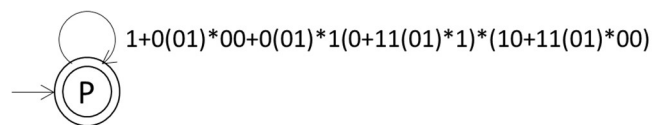
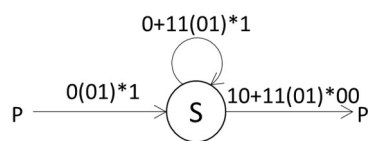
Eliminating Q:



Eliminating R:



Eliminating S:



$$RE = (1+0(01)^*00+0(01)^*1(0+11(01)^*1)^*(10+11(01)^*00))^*$$