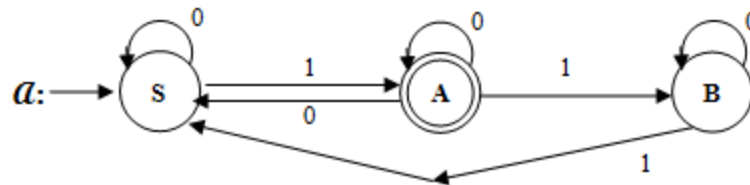
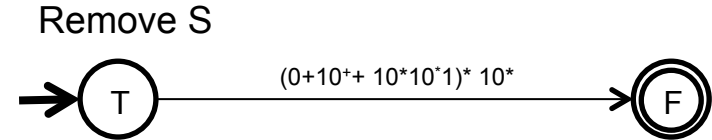
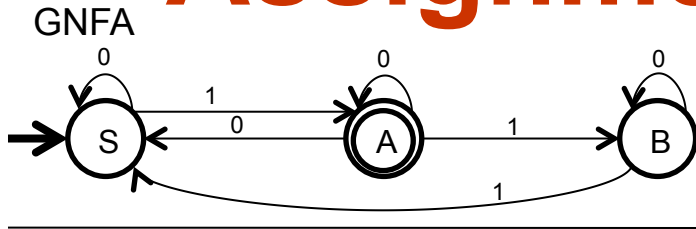


Sample Assignment # 4.1

Convert the following NFA to a regular expression, first by using either the GNFA (or state ripping) or Rij(k) approach, and then by using regular equations. You must show all steps in each part of this assignment.



Assignment # 4.1 Answer



Final RegEx:

$(0+10^++ 10^*10^*1)^* 10^*$

$$S = \lambda + A0 + B1 + S0$$

$$A = S1 + A0$$

$$B = A1 + B0$$

$$B = A10^*$$

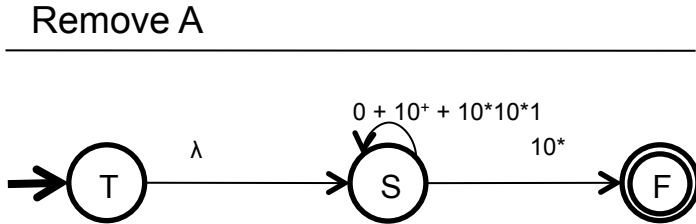
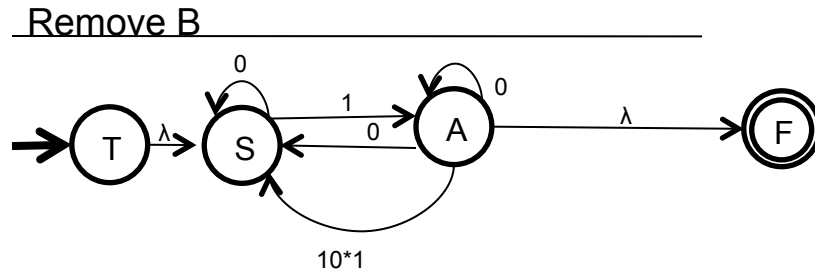
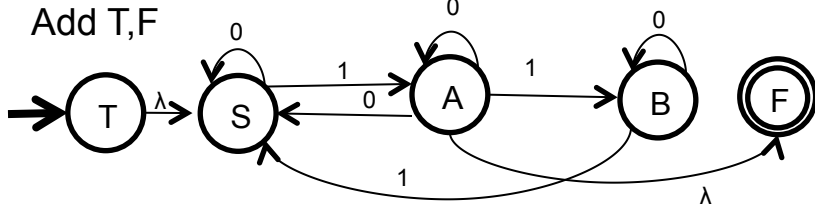
$$S = \lambda + A(0 + 10^*1) + S0$$

$$S = (\lambda + A(0 + 10^*1)) 0^*$$

$$A = (\lambda + A(0 + 10^*1)) 0^*1 + A0$$

$$A = 0^*1 + A(0^*1 + 10^*10^*1)$$

$$\mathbf{A = 0^*1 (0^*1 + 10^*10^*1)^* (FINAL)}$$



Sample Assignment # 4.2

Convert the following NFA to an equivalent DFA.

