

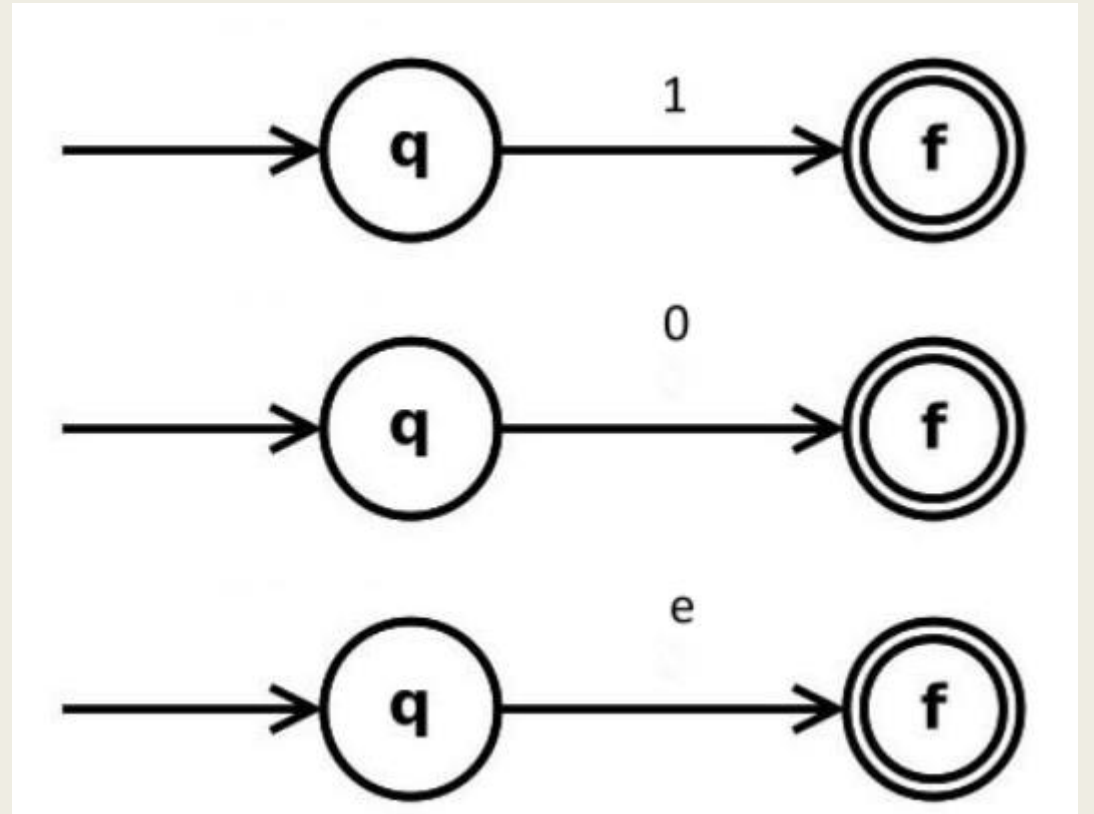


# THOMPSON'S CONSTRUCTION

Task 3

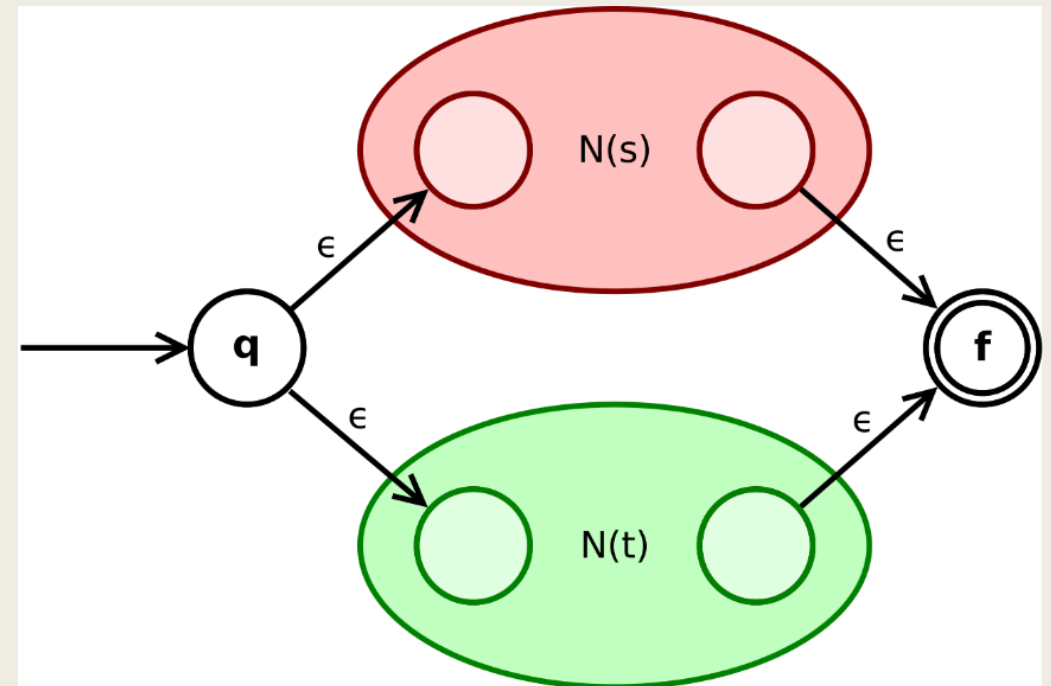
# Thompson's Rules:

- A symbol  $\{ 0, 1, e \}$  is converted to:



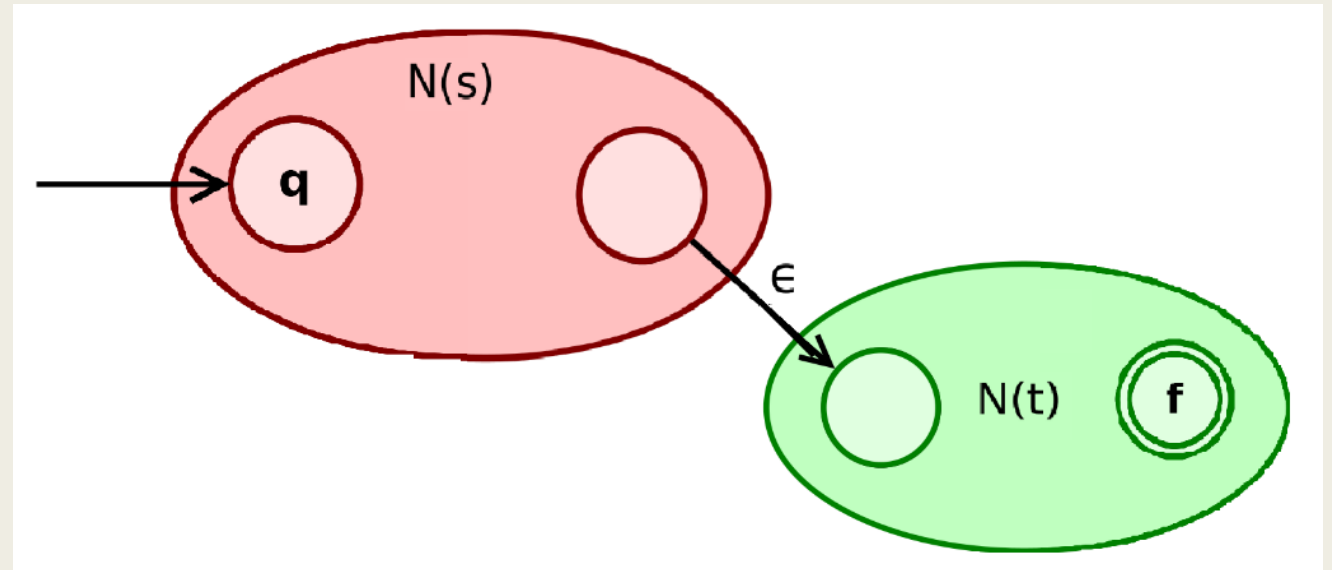
# Thompson's Rules:

- The union expression  $s \mid t$  is converted to:



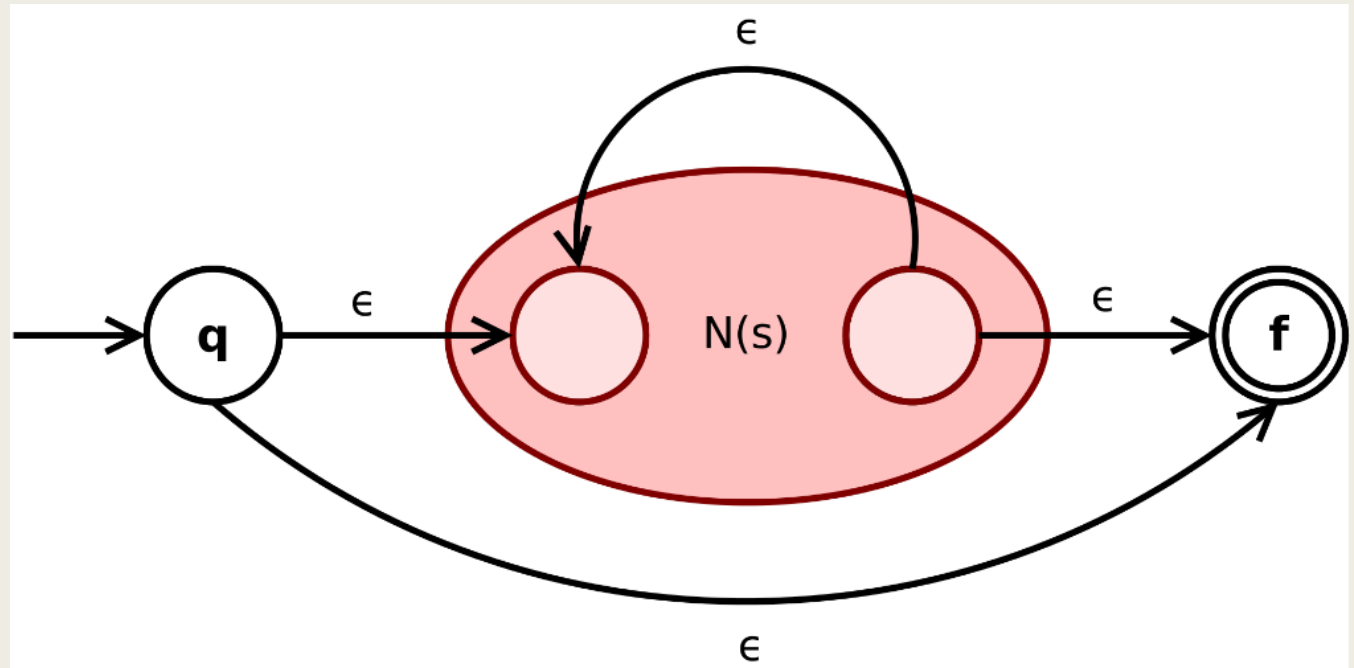
# Thompson's Rules:

- The concatenation expression  $s.t$  is converted to:

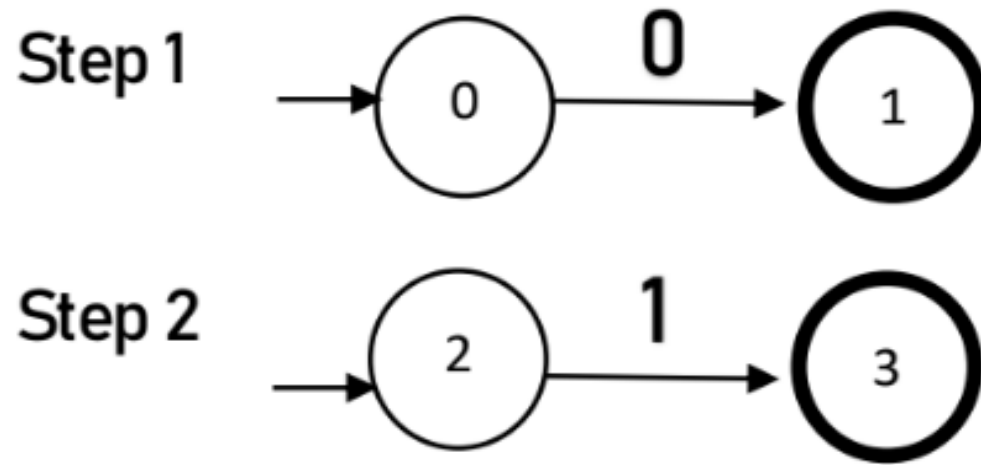


# Thompson's Rules:

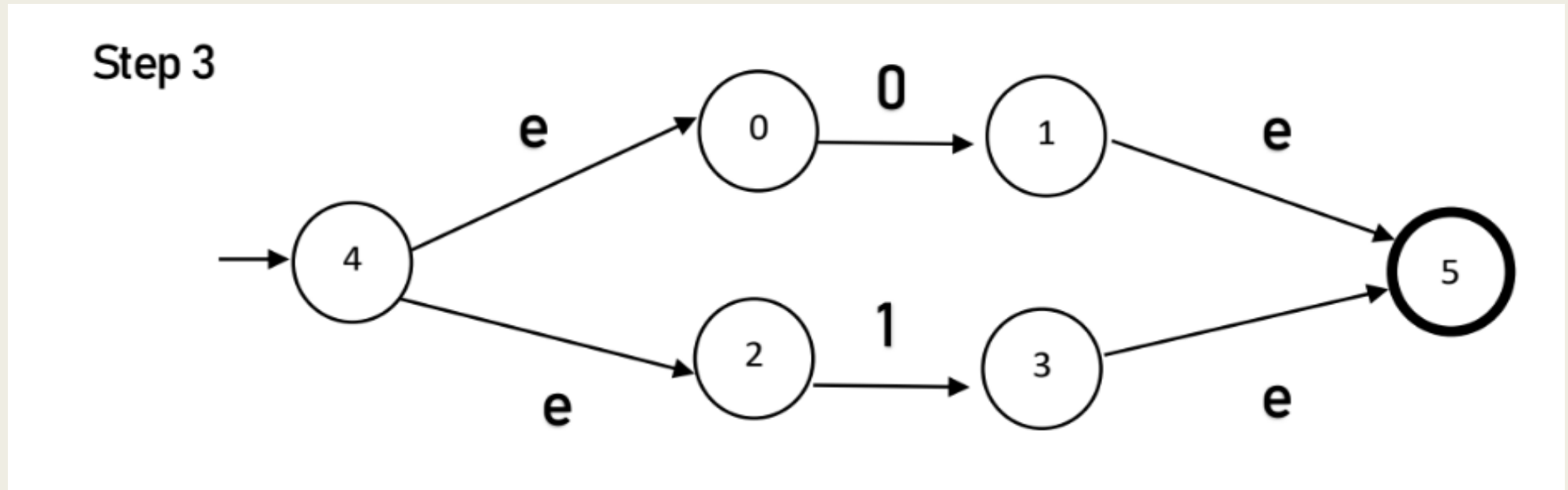
- The Kleene star expression  $s^*$  is converted to:



# Example: “01|”



Example: “01|”



# Example: “01|”

- Output: **6#4#5#0,1#2,3#1,5;3,5;4,0;4,2**
  - *Make sure you keep track the states number*
  - *The output NFA should have the same number of states.*