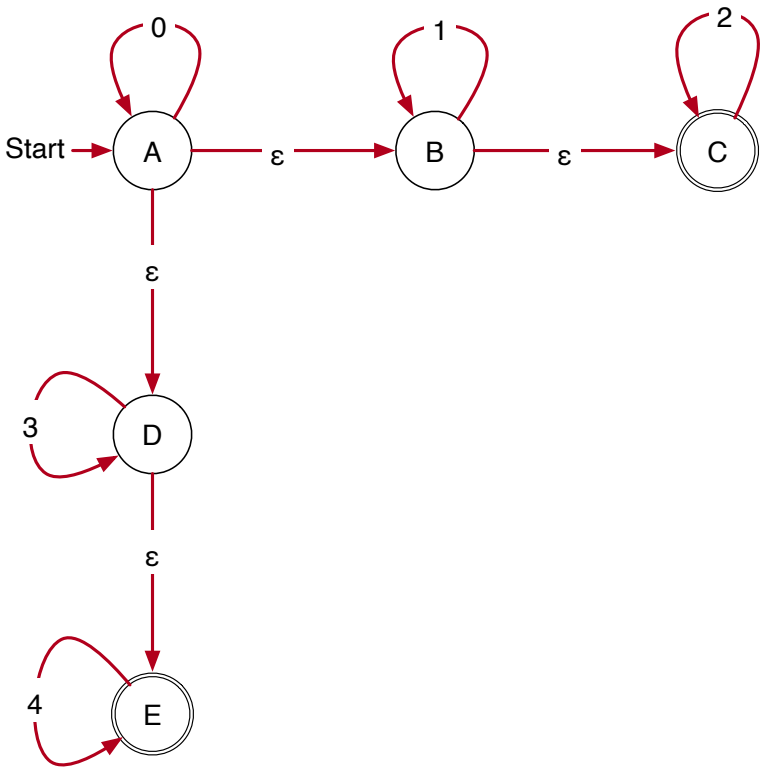
Homework 2

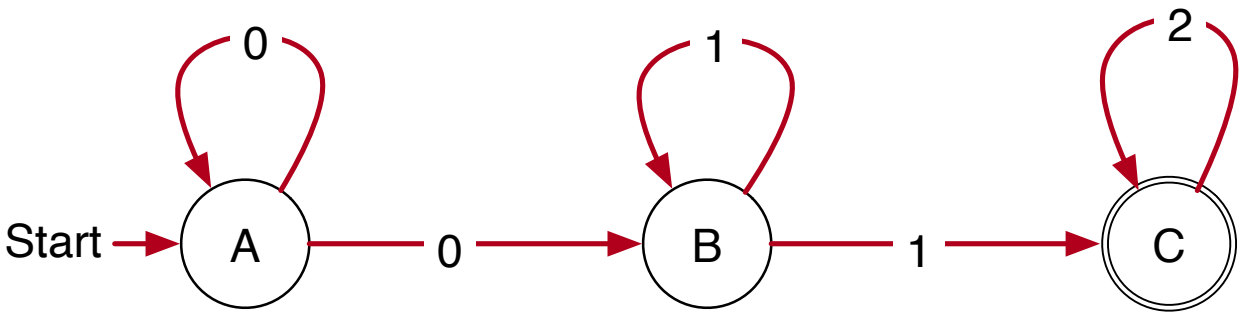
due Sep. 10 via d2l

Problem 1: Given the following NFA with ε moves, calculate the equivalent NFA without ε moves. Give the result in a table:



State	0	1	2	3	4
A	{A,B,C,D,E}	{B,C}	{C}	{D,E}	{E}
B					
C					
D					
E					

Problem 2: Convert the following NFA into a DFA. Give the result in a table.



Problem 3: We use the lower-case ASCII letters as our alphabet. Find an NFA with ε -transitions that recognizes the regular expression

$$(a+b)^*c(a+b)^* + (a+c)^*b(a+c)^*.$$