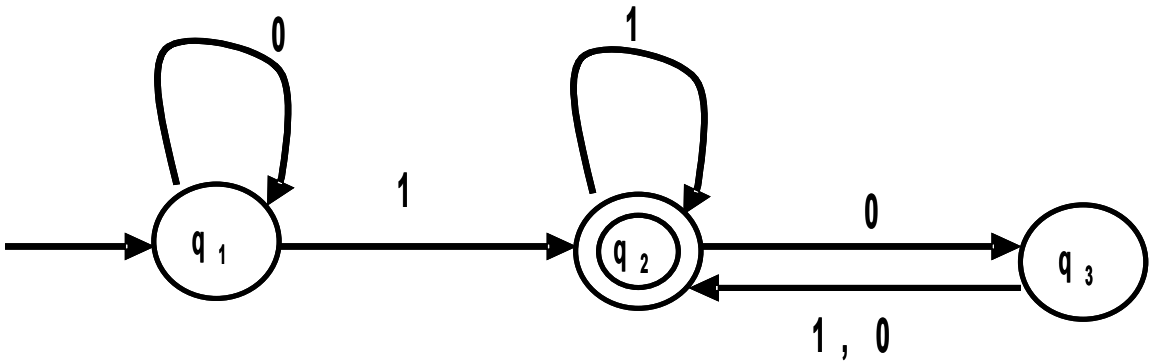
CS310 JFLAP
Homework #2
DUE: September 17, 2010, 2:15pm

1. Build the Finite Automata below in JFLAP.
Save this in the file: JFLAP_Hmwk_2_1_PUNetID.jff



2. Build a finite automata that recognizes the following language:
$L(M)=\{w|1 \textit{ is a suffix of } w\}\Sigma=\{0,1,2\}$

Save this in the file: JFLAP_Hmwk_2_2_PUNetID.jff

3. Build a finite automata that recognizes the following language:
$L(M)=\{w|\textit{the product of the integers in } w \textit{ is greater than } 3\}\Sigma=\{0,1,4\}$
Save this in the file: JFLAP_Hmwk_2_3_PUNetID.jff

4. Construct an NFA to prove that the set of regular languages is closed under union. Use the following regular languages in your construction. Show that L(A) ∪ L(B) is regular. Use the proof of theorem 1.45 as a guide. To *prove* this, you must construct an NFA that uses the FAs for L(A) and L(B), respectively, as components.

L(A) = { w | w has an even # of 1s}
L(B) = { w | w ends in a 1}

Save this in the file: JFLAP_Hmwk_2_4_PUNetID.jff

Send me these files via email by 2:15pm on Friday, Sept 17, 2010. No paper copy is required!
►You answer can be an NFA or DFA, unless specified.