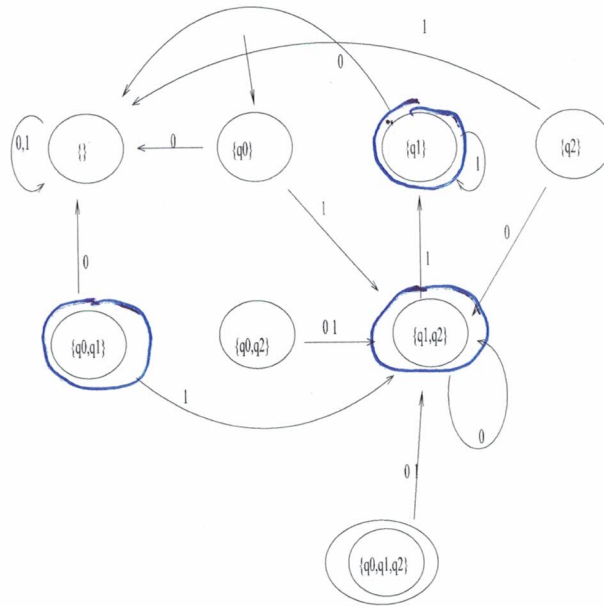
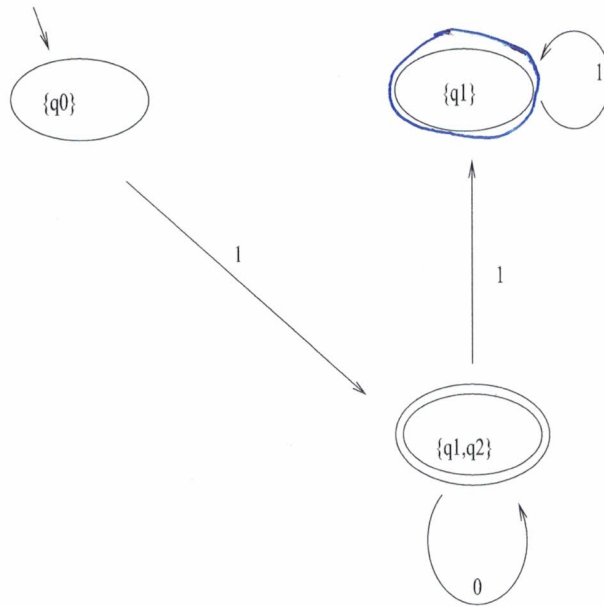


hw 4. prob 1.

Now we can draw M' as below:



Simplify this into:



So, $L(M) = 10^*(11^* + \Lambda)$.

2. You really need to analyze the behavior of the program as I did in class today after you turned in your solutions.

Keys:

1. whenever you read a character other than a, b, you will crash.
2. when I read an a in statement 1, I will return to statement 1,
3. when I read a b in statement 1, I will return to statement 1 or I will go (all the way down to) statement 5 (halt, and accept).

So, the language is $(a + b)^*b$.