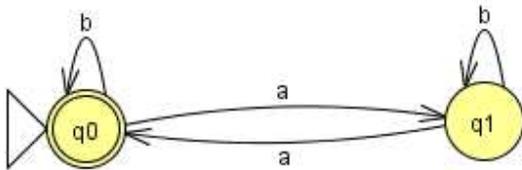


This is a mult-section quiz. You may not communicate to anyone about it until I notify you that you can.

SI340 Quiz 2 Name _____ Alpha _____

Let L be a language over $\Sigma = \{a, b\}$ where $L =$ set of all strings that contain an even number of a 's. Remember that the integer 0 is even and hence the machine must accept the empty string λ .

1. Draw the DFA M that accepts L .



2. Give the formal mathematical definition of your DFA.

$$M = (\{q0, q1\}, \{a, b\} \begin{array}{cc|cc} & & a & b \\ \hline q0 & | & q1 & q0 \\ q1 & | & q0 & q1 \end{array}, q0, \{q0\})$$