Question 1

Don’t include a section number. The name of the question is enough of a guide. In latex, you can suppress the section number with \section*(Question 1).

DFA that accepts any string with one ‘1’.

I took this picture with my phone and cropped it to size, and then emailed it to myself.

Question 1 Critique

I misread the question. I though it wanted the language of strings with at least one 1 rather exactly one 1. I should not have included the self-loop in state b on 1.

When you submit the homework on Friday, you will not have this section. For the critique submission, only include a critique if you made a mistake or think your original answer needs clarifying. Do not modify your original answer.

Question 2

Actually, there is a package that makes formatting automata pretty straight-forward. I formatted the FSA below in a few minutes. Check out the code in sample.tex. I just put the figure inline, rather than wrapping it in a \begin{figure}...\end{figure}.

Question 3

Be careful if you have arcs going both way between two nodes. The figure below is not formatted right, as you cannot tell what character should be recognized going from q₈ to q₂, versus from q₂ to q₁.
Question 3 Critique

Below is a better way to format the graph. You are responsible for making sure your graph is correctly formatted.