DFA Description File Format

A `.dfa` file represents a DFA by describing, in order, the alphabet, the states, the initial state, the final states, and the transitions. The format for each is as follows:

- *Alphabet:* A line containing *n*, the number of symbols in the alphabet, followed by *n* lines, each containing an alphabet symbol. Each alphabet symbol must be a string of printable characters, not including whitespace.
- *States:* A line containing *m*, the number of states, followed by *m* lines, each containing the name of a state. Each state name must be a string of letters and/or digits, but no spaces or other characters.
- *Initial state:* A line containing the name of the initial state for the DFA. The initial state must be one of the states listed in *States* above.
- *Final states:* A line containing *q*, the number of final states, followed by *q* lines, each containing the name of a final state. Each final state must be one of the states listed in *States* above.
- *Transitions:* A line containing *r*, the number of (non-error) transitions in the transition function T, followed by *r* lines, each containing three strings *st1*, *sym*, *st2* separated by spaces. Each such line indicates a transition from state *st1* on symbol *sym* to state *st2*; that is, T(*st1*,*sym*)=*st2*. *st1* and *st2* must be listed in *States* and *sym* must be listed in *Alphabet*, above.

The file mod.dfa contains a description of the following DFA, which recognizes binary integers that have no leading zeroes and are divisible by 3: