

[additional space for answering the earlier question]

3. Provide FSAs equivalent to $a(d \cup a)^*$ and $(a \cup b \cup c)^*(ab \cup ba)$. Ensure you can provide DFAs, but NFAs are OK for now.

4. Use the textbook method (see proof of Lemma 1.60) to compute regular expressions equivalent to the automata defined below in the homework's *Lexaard* language.

```
fsa
m1 very small
    a    b
*q1 q1 q2
   q2 q2 q1
```

```
fsa
m2 a bit larger
    a    b    c
   q1 q2 q1 q1
*q2 q1 q2 q3
   q3 q2 q1 q3
```