

# CL Tutorial 9 - Cosmo Bobak 2079150

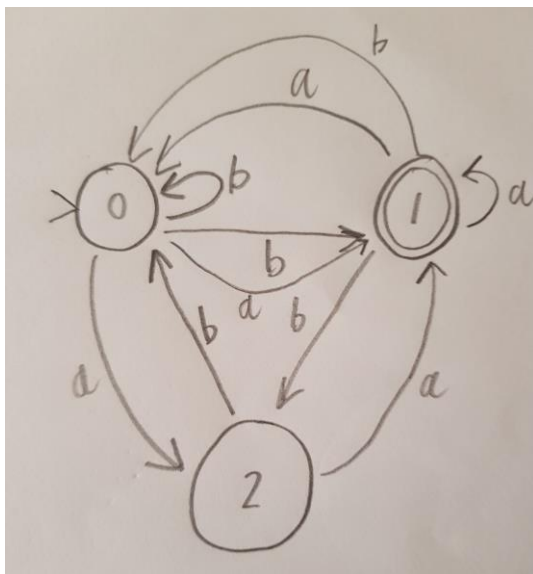
## Exercise 3

a, b, d, and e are accepted by the finite state machine.

## Exercise 4

- a. I, II, and III.
- b. I, II, IV, VI, VII, and VIII.
- c. Machine I is equivalent to  $abb(abb|aabb)^*$

## Exercise 5



- a.
- b. The product of two DFA is a DFA, as they still have a single entry point (technically, as entry happens in parallel and so do actions), and when there are no black holes in either DFA, none will be produced by a merge.