

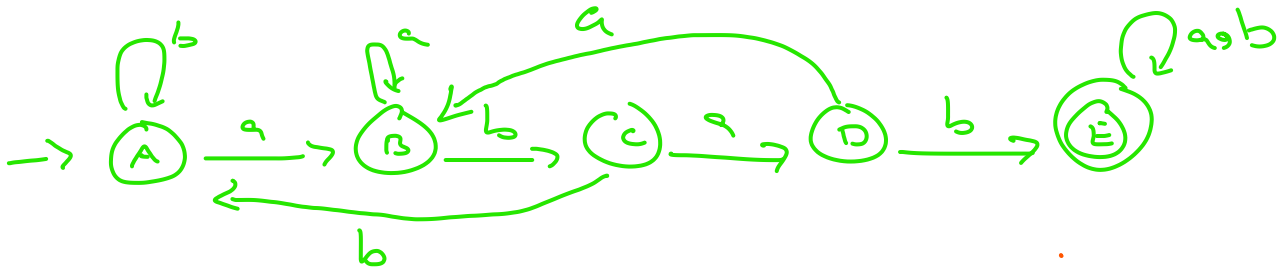
Roll Number:

Name:

**Problem:** Design a DFA for the following Language.
 $L = \{x \mid x \in \{a,b\}^*; x \text{ contains 'abab' as a substring but does not end on 'ab'}\}$ 
Does 'ababa'  $\in L$  prove it using extended transition for DFA.

$$M = M1 \cap M2'$$

M1:



M2:

