

3 Using the Pumping Lemma 12.3
for FSA.

Given the language

$$A = \{x a \bar{x} \mid$$

where \bar{x} is the opposite
(~~backwards~~) of x \}, thus
language cannot be recognized
by a FSA. Let p be the
number of states in a FSA
that accepts A .

Consider this string in A :

$$0^p a 1^p$$