## 获得的答案

返回

**$AMBIG_{NFA}$ = { is ambiguous NFA} is decidable**

An NFA is ambiguous if it accept string and two or more different computational branches. Decidability of NFA’s Ambiguity can be proved by using following approach.

Now, for a given NFA create a DFA D by using strategy NFA-to-DFA conversion which simulates N and accept a string only if it is accepted by NFA and computed using 2 or more computational branches. Now create decider for DFA E for determining whether D accepts any string accepted by NFA N.

Simulate N by keeping the pebble on active state. Initially, put red pebble on initial state along $\in$ transaction. As per N’s transaction, operations like moving, adding and removing are performed, preserving color of pebbles. Whenever 2 or more pebbles moved to same state replace its pebble with blue pebble. After that input is examined and accepted when either the state of blue pebble is accept state or different accept states have red pebbles.

For state of N, the pebbles have corresponding positions of DFA D. There will be three stages in which position contain blue pebble, red pebble or no pebble. On the basis of these stages, ambiguity is generated then it is decidable by recognizing multiple pebbles for same string. If there are multiple pebbles then it is ambiguous and decidable by multiple pebbles and more than 1 red pebbles.