Q. Given a string find all its palindromic substrings

naman

- n ✓
- na
- nam
- nama
- naman ✓
- a ✓
- ama ✓
- aman
- m ✓
- ma
- man
- a ✓
- an
- n ✓

(1) Make all the substring
for ( ) } $O(n^2)$
for ( ) }

Substring
is Palindromic ( ) → $O(n)$

(2) For every substring
check if it is palindromic
or not.

TC → $O(n^3)$

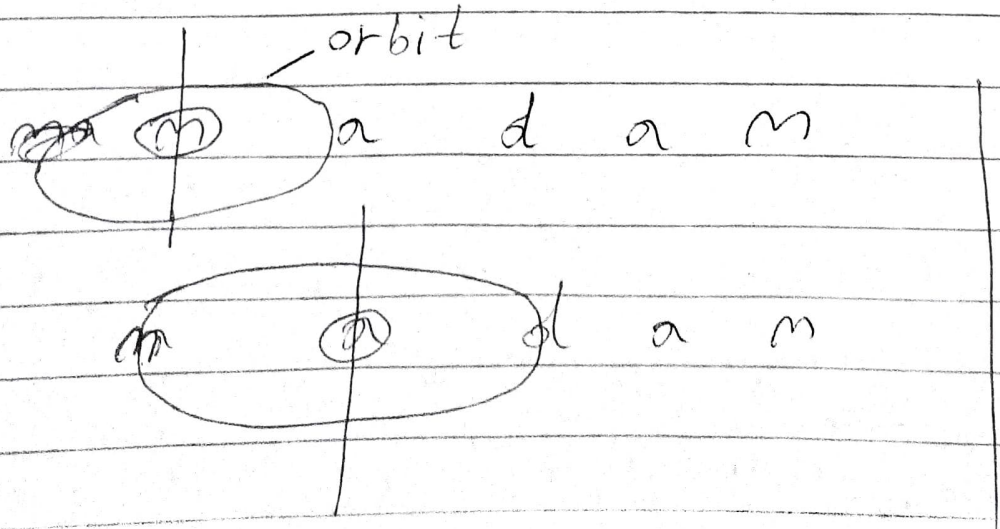
Optimised Approach (Orbit & axis) approach

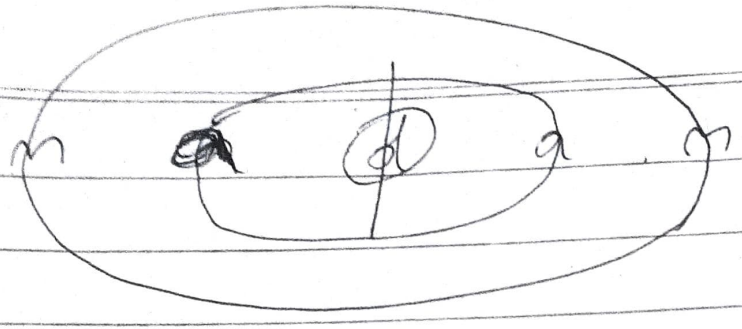
→ odd palindrome
→ even palindrome

madam

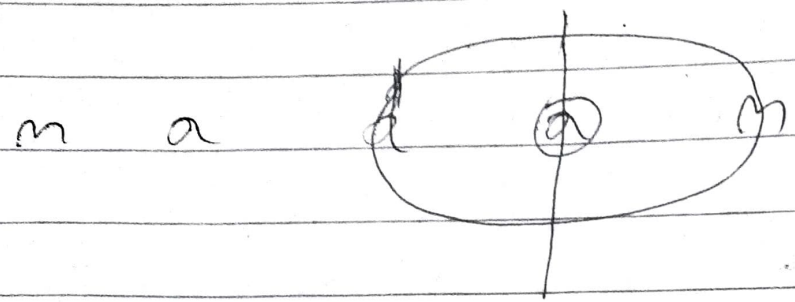
abc;cba

axis



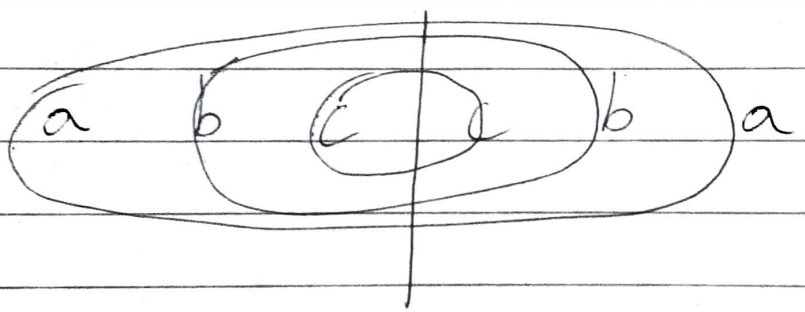


d
ada
madam

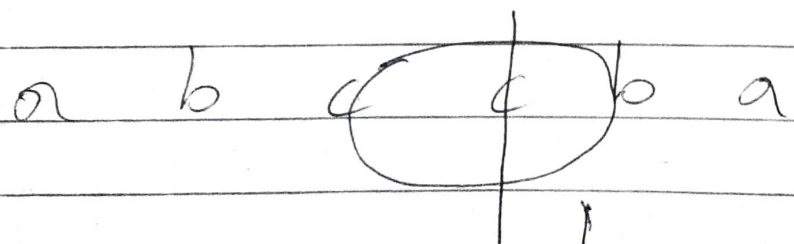


a

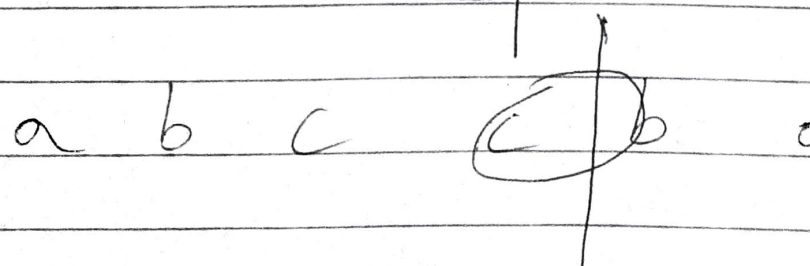
→ If we didn't get palindromic a d a then we don't increase orbit to madam



cc
bccb
abccba



X



X