#include <iostream>

#include <vector>

#include <string>

using namespace std;

setlocale (LC\_ALL, "Rus")

int crambo(string s1, string s2){

int min\_legth = min(s1.size(), s2.size());

for(int i = 0; i < min\_legth; i++){

if(s1[s1.size() - i - 1] != s2[s2.size() - i - 1])

return i;

}

return min\_legth;

}

int main()

{

int size;

cin >> size;

vector<string> v;

while(size--){

string temp;

cin >> temp;

v.push\_back(temp); }

int biggest = 0;

for(int i = 0; i < v.size(); i++)

for(int j = i + 1; j < v.size(); j++){

int size = crambo(v[i], v[j]);

if(biggest < size)

biggest = size;

}

cout << biggest;

return 0;

}