#include <iostream>

#include<string.h>

using namespace std;

int lcs(string X,string Y,int m,int n){

int dp[m+1][n+1];

for(int i=0;i<=m;i++){

for(int j=0;j<=n;j++){

if(i==0 || j==0){

dp[i][j]=0;

}

else if(X[i-1]==Y[j-1] && i!=j){

dp[i][j]= 1+dp[i-1][j-1];

}

else{

dp[i][j]= max(dp[i-1][j], dp[i][j-1]);

}

}

}

return dp[m][n];

}

int main() {

string X="AABEBCDD";

int m = X.size();

string Y=X;

cout<<"Longest repeating subsequence is of length "<< lcs( X, Y, m, m ) ;

return 0;

}