#include <bits/stdc++.h>

int max(int a, int b);

/\* Returns length of LCS for X[0..m-1], Y[0..n-1] \*/

int lcs(char\* X, char\* Y, int m, int n)

{

if (m == 0 || n == 0)

return 0;

if (X[m - 1] == Y[n - 1])

return 1 + lcs(X, Y, m - 1, n - 1);

else

return max(lcs(X, Y, m, n - 1), lcs(X, Y, m - 1, n));

}

/\* Utility function to get max of 2 integers \*/

int max(int a, int b)

{

return (a > b) ? a : b;

}

/\* Driver program to test above function \*/

int main()

{

char X[] = "AGGTAB";

char Y[] = "GXTXAYB";

int m = strlen(X);

int n = strlen(Y);

printf("Length of LCS = %d\n", lcs(X, Y, m, n));

return 0;