

LCS of three strings

三个字符串的LCS

```
#include <bits/stdc++.h>

using namespace std;

int lcsOfThreeStr(string &s1, string &s2, string &s3, int &n, int &m, int &k) {
    vector<vector<vector<int>>> dp(n + 1, vector<vector<int>>(m + 1, vector<int>(k + 1)));
    for (int i = 1; i <= n; ++i) {
        for (int j = 1; j <= m; ++j) {
            for (int l = 1; l <= k; ++l) {
                if (s1[i - 1] == s2[j - 1] && s1[i - 1] == s3[l - 1])
                    dp[i][j][l] = dp[i - 1][j - 1][l - 1] + 1;
                else
                    dp[i][j][l] = max(dp[i - 1][j][l], max(dp[i][j - 1][l], dp[i][j][l - 1]));
            }
        }
    }
    return dp[n][m][k];
}

int main() {
    int T;
    scanf("%d", &T);
    while (T--) {
        string s1, s2, s3;
        int n, m, k;
        scanf("%d %d %d", &n, &m, &k);
        cin >> s1 >> s2 >> s3;
        printf("%d\n", lcsOfThreeStr(s1, s2, s3, n, m, k));
    }
    return 0;
}
```