

KMP

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#include <bits/stdc++.h>
using namespace std;

const int N = 1e6 + 5;
char s[N], t[N];
int nxt[N];
int main(){
    cin >> s + 1 >> t + 1;

    int n = strlen(s + 1), m = strlen(t + 1);
    nxt[1] = 0;
    for(int i = 2, j = 0; i <= m; i++){
        while(j && t[i] != t[j + 1]) j = nxt[j];
        if(t[i] == t[j + 1]) j++;
        nxt[i] = j;
    }

    for(int i = 1, j = 0; i <= n; i++){
        while(j && s[i] != t[j + 1]) j = nxt[j];
        if(s[i] == t[j + 1]) j++;
        if(j == m){
            cout << i - m + 1 << '\n';
            j = nxt[j];
        }
    }

    for(int i = 1; i <= m; i++){
        cout << nxt[i] << " ";
    }
    return 0;
}
```