

Submission

| ID | DATE | PROBLEM | STATUS | CPU | LANG |
|------------|----------|-----------------|------------|--------|------|
| TEST CASES | | | | | |
| 8166888 | 05:08:40 | String Matching | ✓ Accepted | 0.03 s | C++ |
| ✓✓ | | | | | |

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| FILENAME | FILESIZE | SHA-1 SUM | |
|--------------------|------------|--|--------------------------|
| stringmatching.cpp | 1315 bytes | 6941f32741ad33e6d06df67abedd7d2021249aab | download |

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stringmatching.cpp

```
1 #include <bits/stdc++.h>
2 using namespace std;
3
4 vector<int> kmp_pre(string substring)
5 {
6     vector<int> table(substring.size() + 1, -1);
7     for(int i = 1; i <= substring.size(); i++)
8     {
9         int pos = table[i - 1];
10
11         while(pos != -1 && substring[pos] != substring[i - 1]){
12             pos = table[pos];
13         }
14         table[i] = pos + 1;
15     }
16     return table;
17 }
18
19 void kmp_search(string substring,string fullstring,vector<int> table)
20 {
21     int fullIndex = 0;
22     int subIndex = 0;
23
24     int fSize = (int)fullstring.size();
25     int sSize = (int)substring.size();
26
27     while(fullIndex < fSize)
28     {
29         while(subIndex != -1 && (subIndex == sSize || substring[subIndex] != fullstring[fullIndex]))
30             subIndex = table[subIndex];
31
32         subIndex++;
33         fullIndex++;
34
35         if(subIndex == sSize){
36             cout << fullIndex - sSize << " ";
37
38             

?



Help


39             cout << "\n";
40         }
```

```
41
42
43 int main(int argc, const char * argv[]) {
44     ios_base::sync_with_stdio(false);
45     char buffer[1048576];
46     cin.rdbuf()->pubsetbuf(buffer, sizeof(buffer));
47
48     int x,y,z;
49     string sub, full;
50     while (getline(cin,sub)) {
51         getline(cin, full);
52         kmp_search(sub, full, kmp_pre(sub));
53     }
54
55 }
```

