

Submission

ID	DATE	PROBLEM	STATUS	CPU	LANG
	TEST CASES				
8199902	01:49:25	String Matching	✔ Accepted	0.10 s	C++
	✔✔				

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FILENAME	FILESIZE	SHA-1 SUM	
stringmatching.cpp	1271 bytes	3ac58fadd0ebc57e5e8fd2b6f0475b3cb8325a2c	download

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stringmatching.cpp

```
1 #include<bits/stdc++.h>
2
3 using namespace std;
4
5 #define INF 999999
6
7 vector<int> match(string cad, string patron) {
8
9     int pos = 0;
10    int sp = 0;
11    Help    kp = 0;
12
13    vector<int> a;
```

```

14     vector<int> b(patron.size() + 1, -1);
15
16     for(int i = 1; i <= patron.size(); i++) {
17         pos = b[i - 1];
18         while (pos != -1 && patron[pos] != patron[i - 1])
19             pos = b[pos];
20         b[i] = pos + 1;
21     }
22
23
24     while (sp < cad.size()) {
25
26         while (kp != -1 && (kp == patron.size() || patron[kp] != cad[sp]))
27             kp = b[kp];
28
29         kp++;
30         sp++;
31
32         if (kp == patron.size())
33             a.emplace_back(sp - patron.size());
34     }
35
36     return a;
37 }
38
39 int main() {
40
41     string pat;
42     string text;
43     bool flag;
44
45     while (true) {
46
47         if (!getline(cin, pat))
48             break;
49         if (!getline(cin, text))
50             break;
51         auto positions = match(text, pat);
52
53         if (!positions.empty()) {
54             flag = true;
55             for (const auto &i : positions) {
56                 if (flag) {
57                     flag = false;

```

```
58         }
59         else
60             cout<<" ";
61         cout << i;
62     }
63 }
64 cout<<endl;
65 }
66 return 0;
67 }
```