

```
1  /*
2    | Knuth-Morris-Pratt |
3    Desc: Single string matching in O(n)
4    Source: KawakiMeido
5    State: Untested lmao
6  */
7
8  pi[0] = 0;
9  for (int i=1; i<(int)s.size(); i++){
10     int cur = i;
11     while (cur!=0){
12         if (s[i]==s[pi[cur-1]]){
13             pi[i] = pi[cur-1]+1;
14             break;
15         }
16         cur = pi[cur-1];
17     }
18     if (cur == 0){
19         if (s[i] == s[0]) pi[i] = 1;
20         else pi[i] = 0;
21     }
22 }
23
```