

```

1 # compare chaque sous-liste de la liste 'P', complexite O( m n )
2 def positions(P, T, k):
3     m = len(P)
4     n = len(T)
5     results = []
6
7     for i in range(n):
8         sublist = []
9
10        for j in range(m):
11            sublist.append(T[(i+j)%n])
12            is_in_main = True
13            for j in range(m-k):
14                if P[j] == sublist[j]:
15                    pass
16                else:
17                    is_in_main = False
18            if is_in_main:
19                beg = i+1
20                end = ((i+m)%n-1)+1
21                temp = [beg, end]
22                results.append(temp)
23
24
25
26        print(results)
27        return results
28
29
30 #unit testing
31 P = ['A', 'A', 'A', 'G', 'T']
32 T = ['G', 'A', 'T', 'A', 'A', 'G', 'T', 'A', 'A', 'A']
33 k = 1
34 positions(P, T, k)

```

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# }
#time = -4nk+5nm+2n+3

```