

# 2016 Multi-University Training Contest 2

## 比赛情况

题号	A	B	C	D	E	F	G	H	I	J	K	L	M
状态	0	-	-	-	0	0	-	-	0	-	0	∅	-

0 在比赛中通过 ∅ 赛后通过! 尝试了但是失败了- 没有尝试

### 比赛时间

2020-05-27 13:00-18:00

### 提交记录

K: Accepted 2020-05-27 13:33:18

I: Accepted 2020-05-27 13:41:58

L: Time Limit Exceeded 2020-05-27 15:09:42

F: Wrong Answer 2020-05-27 15:56:01

F: Accepted 2020-05-27 16:24:15

E: Accepted 2020-05-27 17:30:56 (这个E写不过来了)

## 题解

### K-Keep on Movin

有  $n$  种字符，每种字符有  $a_i$  个，用所有字符组成多个回文串，问最短的回文串的最大值。

贪心的构造尽量少的回文串然后让长度尽可能平均，容易发现最少的回文串的个数等于个数为奇数的字符数，然后尽可能平均分配每个回文串即可。

```
#include<bits/stdc++.h>
#define ll long long
#define pii_ pair<int,int>
#define mp_ make_pair
#define pb push_back
#define fi first
#define se second
#define rep(i,a,b) for(int i=(a);i<=(b);i++)
#define show1(a) cout<<#a<<" = "<<a<<endl
#define show2(a,b) cout<<#a<<" = "<<a<<" "; cout<<#b<<" = "<<b<<endl
using namespace std;
const ll INF = 1LL<<60;
```



```
for(cin>>_;;_--){
    cin>>n>>m;
    cin>>s>>p;
    rep(i,0,26) f[i].reset();
    rep(i,0,2) dp[0][i].reset(),dp[1][i].reset();
    rep(i,0,n-1) f[s[i]-'a'][i] = 1;
    dp[0][1] = f[p[0]-'a'];
    if(m>1) dp[0][2] = f[p[1]-'a'];
    int now = 0;
    rep(i,1,m-1){
        now ^= 1;
        dp[now][0] = (dp[now^1][2]<<1) & f[p[i-1]-'a'];
        dp[now][1] = ((dp[now^1][1] | dp[now^1][0])<<1) & f[p[i]-'a'];
        if(i<m-1) dp[now][2] = ((dp[now^1][0] | dp[now^1][1])<<1) &
f[p[i+1]-'a'];
    }
    rep(i,0,n-1){
        if(dp[now][0][i+m-1] || dp[now][1][i+m-1]) cout<<1;
        else cout<<0;
    }
    cout<<endl;
}
return 0;
} </cpp>
```

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