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//KMP
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#include <stdio.h>
#include <string.h>

char a[1234]="\0",b[1234]="\0";
int next[1234];

int kmp()
{
    int i=0,j=0;
    while(a[i])
    {
        if(j== -1)
        {
            i++;
            j++; //j=0;
        }
        if(b[j]=='\0')
        {
            return i-j+1; //完全匹配
        }
        if(a[i]==b[j])
        {
            i++;
            j++;
        }
        else
        {
            j = next[j];
        }
    }
    return 0;
}
```

```

void get_next()
{
    int j=0,k=-1;
    memset(next,0,sizeof(next));
    next[0] = -1;

    while(b[j])
    {
        if(k== -1 || b[k]==b[j])
        {
            next[j+1] = k+1;
            j++;
            k++;
        }
        else
        {
            k = next[k];
        }
    }
}

int main()
{
    int i;
    while(~scanf("%s%s",&a,&b))
    {
        //printf("%s %s",a,b);
        get_next();
        for(i=0;b[i];i++)
        {
            printf("%d ",next[i]);
        }
        printf("\n%d\n",kmp());
        memset(a,0,sizeof(a));
        memset(b,0,sizeof(b));
    }
    return 0;
}

```

