Experiment 6

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范睿

EX6-1 字符串匹配

解题思路:

利用KMP算法解决每组问题。

算法:

```
cin >> pattern;
cin >> text;
plen = strlen(pattern);
tlen = strlen(text);

for i = 1 to plen
    j = i
    while(j > 0){
        j = net[j];
        if(pattern[j] == pattern[j]){
            net[i+1] = j+1;
            break;
        }
    }
cnt = 0;
j = 0;
for i = 1 to tlen
    if(j < plen && pattern[j] == test[i]) j++;
    else{
        while(j>0){
            j = net[j];
            if(text[i] == pattern[j]){
                j++;
                break;
            }
        }
    }
    if(j == plen) cnt++;
cout << cnt
```

复杂度分析:

$\mathcal{O}(plen + tlen)$