1040. Longest Symmetric String (25)

时间限制

400 ms

内存限制

65536 kB

代码长度限制

16000 B

判题程序

Standard

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Given a string, you are supposed to output the length of the longest symmetric sub-string. For example, given "Is PAT&TAP symmetric?", the longest symmetric sub-string is "s PAT&TAP s", hence you must output 11.

**Input Specification:**

Each input file contains one test case which gives a non-empty string of length no more than 1000.

**Output Specification:**

For each test case, simply print the maximum length in a line.

**Sample Input:**

Is PAT&TAP symmetric?

**Sample Output:**

11

[提交代码](https://www.patest.cn/contests/pat-a-practise/1040)

最大回文字串，从字符串头开始设置一个定标，这个定标指向当前字符，为x，同时也指向当前字符与后面字符的中间空隙,为y。

x左边和右边的字符直到查到不相等位置，所得的长度即为这个当前字符的最大回文子字符串

y，是空隙，左边和右边字符直到查到不相等位置，所得的即为空隙的最大回文字符子串。

#include<iostream>

#include<string>

#include<algorithm>

#include<queue>

#include<vector>

#include<sstream>

#include<stack>

#include<map>

using namespace std;

int main()

{

string target;

int total=0;

getline(cin,target);

for (int i = 0; i < target.size(); i++)

{

int left = i, right = i;

int temp = 0;

while (1)

{

if (left == -1 || right == target.size())

{

break;

}

if (target[left] != target[right])

{

break;

}

left--;

right++;

temp++;

}

if (temp\*2-1 > total)

total = temp\*2-1;

left = i;

right = i+1;

temp = 0;

while (1)

{

if (left == -1 || right == target.size())

{

break;

}

if (target[left] != target[right])

{

break;

}

left--;

right++;

temp++;

}

if (temp\*2 > total)

total = temp\*2;

}

cout << total;

}