

New Palindrome

Input File: palindrome.txt

You've been given a sentence by your friend, and he has a special task for you. You must determine the minimum number of characters you must remove in order to make that sentence a palindrome. The palindrome is case-sensitive ('S' is not equal to 's'), and spaces do **not** count as characters.

Input:

The first line contains an integer N, which represents the number of sentences you are given (each line is a separate sentence and a new problem). The next N lines each contain one sentence.

Output:

You must output the minimum number of characters you must remove in order to make the sentence a palindrome. You must do this N times (once for every new sentence), and each new answer should be on the next line.

Example Input:

```
3
Redivide
please do not step on the pets there.
The owl Ate my metal worm
```

Example Output:

```
1
15
7
```