

Rhythmic Tune

locked

Problem

Submissions

Time Limit: *C/C++ (1s)* , *Java (2s)*Memory Limit: **512MB**

SRBD management has decided to introduce a cultural function at the *Code Contest* prize ceremony this year. An employee, Mr. X has been selected to perform a song on that function. Mr. X decided to stage an old song. So, he is searching for some old tunes from his audiobook from which he will decide which one to perform.

A *Pitch* (unit of a tune) is denoted by a capital English letter from 'A' to 'Z'. A tune may have one or more pitches. Any consecutive portion from within the tune can also be considered a separate tune.

Mr. X loves rhythmic tunes so much. A rhythmic tune is composed of a series of tunes where the particular pattern, known as base tune appears **multiple times (two or more) consecutively**. Suppose, a base tune is "ABA". So, some possible rhythmic tunes are "ABAABA" (repeated 2 times), "ABAABAABA" (repeated 3 times), and more.

As a rhythmic tune lover, Mr. X needs to find a rhythmic tune with the **largest length** from within his tune. Could you help him find this?

Input Format

The first line contains an integer T denoting the number of test cases.

Each of the next T lines contains a string S denoting the tune.

Constraints

$$1 \leq T \leq 25$$

$$1 \leq |S| \leq 5000$$

Output Format

For each test case, print the length of the longest rhythmic tune that can be found from S in separate lines.

Sample Input 0

```
3
HXAGGTABAABAABAHXHAXYXYXX
ABABABABA
SAMSUNG
```

Sample Output 0

```
9
8
0
```

Explanation 0

For **test case 1**, The rhythmic tunes are "GG", "ABAABAABA", and "XYXYXY". Among those the largest rhythmic tune is "ABAABAABA" which has a length of **9**.

C



```
1 #include <stdio.h>
2 #include <string.h>
3 #include <math.h>
4 #include <stdlib.h>
5
6 int main() {
7
8     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
9     return 0;
10 }
```

Line: 1 Col: 1

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