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## Number of peaks in input numbers

X25987\_en

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Given a natural number  $n$ , a peak in  $n$  are three consecutive digits of the representation in base 10 of  $n$  such that the one in the middle is strictly greater than the other two surrounding it.

Write a program that reads input numbers and counts how many peaks there are in each of them.

For example, with input 192056423 it must print 2.

### Input

The input has an arbitrary number of cases. Each case has a positive natural number in one line.

### Output

For each case, there is one line with the corresponding number of peaks.

#### Sample input 1

```
1
5
10
111
121
983702120
132436475
123456789
987654321
35102
785902
1010101
101010
10101
30219834
123321233
410938
899999995
999999
113311
13221
2
3
1234567890
```

#### Sample output 1

```
0
0
0
0
1
3
4
0
0
1
2
2
2
1
2
0
1
0
0
0
1
0
0
1
0
0
1
```

#### Sample input 2

```
391430
783080367
109
2
29
2145601
3
```

```
8634
29449099
5292
5594
601921
43
425002
66332951
```

584707801  
360981924  
38480663  
8882  
5  
4165874  
57193  
6  
121277986  
4844  
7836  
705250  
6818  
72153  
99939  
9622733  
50215  
991627275  
201  
4  
52250  
239189939  
8  
3239  
6153  
10523787  
49  
939488  
4478644  
12  
89  
418191  
929814854  
125886  
11047

## Sample output 2

2  
2  
0  
0  
0  
1  
0  
0  
2  
1  
1  
1  
0  
1  
1  
3  
3  
2  
0  
0  
2  
2  
0  
2  
1  
1  
2  
1  
1  
0  
1  
1  
1  
3  
0  
0  
1  
1  
0  
0  
0  
1  
1  
0  
0  
2  
2  
0  
0  
0

### Observation

It is not allowed to use any massive storage data structure, not even `string`. Please solve this exercise by just using type `int` and manipulating integers with the basic operators (+, -, \*, /, %).

Assessment over 10 points:

- Slow solution: 5 points.
- Fast solution: 10 points.

We understand as fast solution one being correct, with linear cost and able to overcome both the public and private tests. We understand as slow solution one not being fast, but correct and able to overcome the public tests.

### **Problem information**

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Generation : 2023-10-25 20:53:45

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