ACM Qualifier 2016: Quick Estimates

Let's face it... you are not that handy. When you need to make a major home repair, you often need to hire someone to help. When they come for the first visit, they make an estimate of the cost. Here they must be careful: if they overestimate the cost, it might scare you off, but if they underestimate, the work might not be worth their time.

Because the worker is so careful, it can take a long time for them to produce the estimate. But that's frustrating — when you ask for an estimate, you really are asking for the magnitude of the cost. Will this be 10 or 100 or 1 000? That's all you really want to know on a first visit.

Please help the worker make the type of estimate you desire. Write a program that, given the worker's estimate, reports just the magnitude of the cost — the number of digits needed to represent the estimate

Input Format

Input begins with a line containing an integer N ($1 \le N \le 100$). The next N lines each contain one estimated cost, which is an integer between 0 and 10^{100}. (Some of the workmen overcharge quite a bit.)

Output Format

For each estimated cost, output the number of digits required to represent it.

Sample Input

```
5
314
1
5926
5
35897
```

Sample Output

```
3
1
4
1
5
```