

Find Digits

Problem Statement

You are given an integer N . Find the digits in this number that exactly divide N (division that leaves 0 as remainder) and display their count. For $N = 24$, there are 2 digits — 2 & 4. Both of these digits exactly divide 24. So our answer is 2.

Note

- If the same number is repeated twice at different positions, it should be counted twice, e.g., For $N = 122$, 2 divides 122 exactly and occurs at ones' and tens' position. So for this case, our answer is 3.
- Division by 0 is undefined.

Input Format

The first line contains T (number of test cases) followed by T lines (each containing an integer N).

Constraints

$$1 \leq T \leq 15$$

$$0 < N < 10^{10}$$

Output Format

For each test case, display the count of digits in N that exactly divide N in a separate line.

Sample Input

```
2
12
1012
```

Sample Output

```
2
3
```

Explanation

1. 2 digits in the number 12 divide the number exactly. Digits at tens' place, 1, divides 12 exactly in 12 parts, and digit at ones' place, 2 divides 12 equally in 6 parts.
2. 1 divides 1012 at two places and 2 divides it at one place. Divide by 0 is an undefined behaviour and it will not be counted.

This challenge was a part of [Pragyan 12](#)