

2948 - Lazy Unit Sum

Description

Jimmy is a math teacher at Great Frontier School. He loves to give his students multiplication exercises. However, he doesn't care about the actual operation result but the unit sum of its digits.

At Great Frontier School, they define the unit sum (US) of N as the unit that it is left after doing the sum of all the digits of a number over and over again until they get a number of exactly 1 digit. For example: $US(976) = 9 + 7 + 6 = 22 \rightarrow 2 + 2 = 4$. Another example is $US(19) = 1$.

Jimmy left as an assignment to get the US of any number. In order to check if a student get the right answer or not, he wants to make a program that solves it fast enough, but he is too busy for doing it himself.

¿Can you help Jimmy to check his homework?

Input specification

The first line of input contains an integer T ($1 \leq T \leq 50$), the number of test cases. Next T lines contains an integer number $0 \leq A \leq 10^{1000}$.

Output specification

For each test case, the output is a single line containing the corresponding Unit Sum of A .

Sample input

```
3
18
14
1234
```

Sample output

```
9
5
1
```