Project Euler #20: Factorial digit sum

This problem is a programming version of Problem 20 from projecteuler.net

$$n! \text{ means } n \times (n-1) \times \cdots \times 3 \times 2 \times 1$$

For example, $10! = 10 \times 9 \times \cdots \times 3 \times 2 \times 1 = 3628800$,
and the sum of the digits in the number $10!$ is $3+6+2+8+8+0+0 = 27$.

Find the sum of the digits in the number $N!$

Input Format

The first line contains an integer T , i.e., number of test cases.
Next T lines will contain an integer N.

Constraints

- $1 \leqslant T \leqslant 100$

- $0 \leqslant N \leqslant 1000$

Output Format

Print the values corresponding to each test case.

Sample Input

```
2
3
6
```

Sample Output

```
6
9
```

Explanation

- $3!$ is 6, sum of digit is 6.

- $6!$ is 720, sum of digits is 9.