Last Factorial Digit

Problem ID: lastfactorial
CPU Time limit: 1 secon
Memory limit: 1024 MB
Difficulty: 1.3

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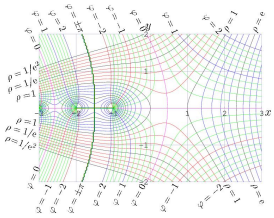
Source: 2018 ICPC South USA Regional Contest

The factorial of N, written as $N!$, is defined as the product of all the integers from 1 to N. For example, $3! = 1 \times 2 \times 3 = 6$.

This number can be very large, so instead of computing the entire product, just compute the last digit of $N!$ (when $N!$ is written in base 10).



Factorials on the complex plane, by Dmitrii Kouznetsov

Input

The first line of input contains a positive integer $1 \leq T \leq 10$, the number of test cases. Each of the next T lines contains a single positive integer N. N is at most 10.

Output

For each value of N, print the last digit of $N!$.

Sample Input 1

```
3
1
2
3
```

Sample Output 1

```
1
2
6
```

Sample Input 2

```
2
5
2
```

Sample Output 2

```
0
2
```