Small factorials

You are asked to calculate factorials of some small positive integers.

Input

An integer t, 1<=t<=100, denoting the number of testcases, followed by t lines, each containing a single integer n, 1<=n<=100.

Output

For each integer n given at input, display a line with the value of n!

Example

Sample input:

4
1
2
5
3

Sample output:

1
2
120
6