

# Project Euler #5: Smallest multiple



This problem is a programming version of [Problem 5](#) from [projecteuler.net](#)

**2520** is the smallest number that can be divided by each of the numbers from **1** to **10** without any remainder.

What is the smallest positive number that is evenly divisible (divisible with no remainder) by all of the numbers from **1** to  $N$ ?

## Input Format

First line contains  $T$  that denotes the number of test cases. This is followed by  $T$  lines, each containing an integer,  $N$ .

## Constraints

- $1 \leq T \leq 10$
- $1 \leq N \leq 40$

## Output Format

Print the required answer for each test case.

## Sample Input 0

```
2
3
10
```

## Sample Output 0

```
6
2520
```

## Explanation 0

- You can check **6** is divisible by each of  $\{1, 2, 3\}$ , giving quotient of  $\{6, 3, 2\}$  respectively.
- You can check **2520** is divisible by each of  $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$  giving quotient of  $\{2520, 1260, 840, 630, 504, 420, 360, 315, 280, 252\}$  respectively.