

# Project Euler #187: Semiprimes

This problem is a programming version of [Problem 187](#) from [projecteuler.net](#)

A composite is a number containing at least two prime factors. For example,  $15 = 3 \times 5$ ;  $9 = 3 \times 3$ ;  $12 = 2 \times 2 \times 3$ .

There are ten composites below thirty containing precisely two, not necessarily distinct, prime factors: 4, 6, 9, 10, 14, 15, 21, 22, 25, 26.

How many composite integers  $n$ ,  $n < N$ , have precisely two, not necessarily distinct, prime factors?

## Input Format

The first line of each test file contains a single integer  $T$ , the number of test cases.  $T$  lines follow, each containing a single integer  $N$ .

## Constraints

- $1 \leq T \leq 20$
- $5 \leq N \leq 10^8$

## Output Format

Output exactly  $T$  lines with a single number on each - an answer to the corresponding test case.

## Sample Input

```
1
5
```

## Sample Output

```
1
```