Project Euler #7: 10001st prime

This problem is a programming version of Problem 7 from projecteuler.net

By listing the first six prime numbers: $2, 3, 5, 7, 11$ and 13, we can see that the 6^{th} prime is 13.
What is the N^{th} prime number?

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

- $1 \leqslant T \leqslant 10^3$
- $1 \leqslant N \leqslant 10^4$

Output Format

Print the required answer for each test case.

Sample Input 0

```
2
3
6
```

Sample Output 0

```
5
13
```

Explanation 0

The first 10 prime numbers are

$$\{2, 3, 5, 7, 11, 13, 17, 19, 23, 29\}$$

we can see that 3^{rd} prime number is 5 and 6^{th} prime number is 13