

# Sieve of Eratosthenes

Heard of a procedure called sieve of Eratosthenes? Well, implement this:

- 1). Fill an array `num[n]` (where  $0 \leq n \leq 1000$ ) with numbers from 1 to `n`.
- 2). Starting with the second entry in the array, set all its multiples to zero.
- 3). Proceed to the next non-zero element and set all its multiples to zero.
- 4). Repeat step 3 till u have set up the multiples of all the non-zero elements to zero.
- 5). At the conclusion of step 4, all the non-zero entries left in the array would be.....(obviously) prime numbers, so print out these numbers.

## Input

First line consists of number of test cases `t` ( $0 \leq t \leq 100$ ). The next lines refers to the values of `n` ( $0 \leq n \leq 1000$ ).

## Output

The number of prime numbers upto `n` with output of each test case separated by a extra line.

## Example

**Input:**

2  
5  
10

**Output:**

1  
2  
3  
5

1  
2  
3  
5  
7