Number of Primes

Time Limit: 10.0s **Memory Limit:** 64M

Welcome to the PEO-Mississauga Chapter High School Coding Contest 2022 (PMHSCC2022)!

Number of Primes

A natural number $N \geq 2$, is a prime number if it has no natural number divisors other than 1 and itself (N).

For example, 7 is prime because its only divisors are 1 and 7. The number 2 is considered to be prime.

However, 6 is not prime because its divisors are $1, 2, 3,$ and 6. So it has divisors other than 1 and itself (6).

Your program:

1. Given an integer $2 \leq N \leq 10,000$ determine the number of primes less than and including that number.
2. To determines if a number is prime, you may want to use a for loop with a range function to determine if it is a prime number. For example, "for i in range (2, num+1):""
3. Hint: You can nest the above for loop inside another for loop to count the number of primes.
4. Firstly, your code will input a natural number $N \geq 2$.
5. You will then output the number of primes $\leq N$.

Sample Input #1

```
1234
```

Sample Output #1

```
202
```

Sample Input #2

```
31
```

Sample Output #2

```
11
```