

# Homework 11

This homework is **optional**. In case of completion the points will be added to the total of all homeworks.

General comments:

- Do not forget to run some test cases.

## Problem 1 (15 points max)

The prime number is the integer which is divisible only by 1 and itself. We exclude 1 from the prime numbers list.

Write a function “primes\_after” according to the following specification

**function** PrimeNumbersList = primes\_after(N, M)

which outputs a **row** vector of M prime numbers starting from N (inclusive). N and M are guaranteed to be positive integer numbers, no checks for this are necessary. Make sure your function follows the specification above **exactly**.

Examples:

```
>> primes_after(7,2);  
ans=[ 7, 11 ]  
>> primes_after(1,2);  
ans=[ 2, 3 ]
```

In our speed comparison tests,  $M$  will be in order of a  $10^6$ , and  $N$  will be something like  $10^9$  or even more.

- If you do the function right you will get only 5 points. I.e., it follows the specification and outputs valid results.
- You will get extra 5 points if your algorithm is the fastest in the class.
- You will get extra 5 points if your algorithm is faster than the instructor one.
- We will run the competition during the practice section.