Homework 10

Optional in case of completion points will be added to the final exam score.

Problem 1 (10 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” according to the following specification

\[
\text{function } \text{PrimeNumbersList} = \text{primes}(N)
\]

which outputs a vector of all prime numbers starting from 2 till N (inclusive). N is guaranteed to be positive integer number, no checks for this are necessary.

Example: \text{primes(7)} as well as \text{prime(8)} will result:

PrimeNumbersList = [2, 3, 5, 7]

N will be a large number something like $10^5$ or even more.

- If you do the function right you will get only 2 points.
- You will get 5 points if your algorithm is the fastest in the class.
- You will get 10 points if your algorithm is faster than instructor one.
- We will run the competition during the Friday class.