Assignment 4

All assignments *must* be submitted as a JupyterLab `.ipynb` notebook file via email (aattanasio@unm.edu). Title the file with your name: `Assignment_NAME.ipynb`.

The *Sieve of Eratosthenes* is an ancient method for calculating prime numbers. You can read about it on Wikipedia. Some pseudocode for the algorithm is below.

> **Note: Pseudocode** is a plain language description of the steps in an algorithm. It is often composed from structural conventions of a normal programming language, but is intended for human reading rather than machine reading. That is, it will most likely error out if executed by any programming language interpreter.

In [ ]:
```
algorithm Sieve of Eratosthenes is
    input: an integer n > 1.
    output: all prime numbers from 2 through n.

    let A be an array of Boolean values, indexed by integers 2 to n,
    initially all set to true.

    for i = 2, 3, 4, ..., not exceeding √n do
        if A[i] is true
            for j = i2, i2+i, i2+2i, i2+3i, ..., not exceeding n do
                set A[j] := false

    return all i such that A[i] is true.
```

Based on the pseudocode below, write a Python code to make a list of all primes less than 10,000. How many are there? (When you answer this question, you'll see the curious result that the number of primes less than 10,000 is also prime!)

In [ ]:
```
# NAME_OF_YOUR_SCRIPT.py
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In [ ]:
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In [ ]:
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