

```

In [17]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0478s.
The code executed in 0.2969s.

In [18]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.4207s.
The code executed in 0.7187s.

In [19]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0671s.
The code executed in 0.9843s.

In [20]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1849s.
The code executed in 0.9940s.

In [21]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.3172s.
The code executed in 0.6562s.

In [22]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1932s.
The code executed in 0.6406s.

In [23]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Traceback (most recent call last):

  File "<ipython-input-23-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')

  File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)

  File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)

  File "D:/Computation/Primes/temp.py", line 5, in <module>
    prime=np.loadtxt('primes.dat', dtype=int)

  File "C:\ProgramData\Anaconda3\lib\site-packages\numpy\lib\numpyio.py", line 1134, in loadtxt
    for x in read_data(_loadtxt_chunksize):

  File "C:\ProgramData\Anaconda3\lib\site-packages\numpy\lib\numpyio.py", line 1050, in read_data
    vals = split_line(line)

  File "C:\ProgramData\Anaconda3\lib\site-packages\numpy\lib\numpyio.py", line 1027, in split_line
    line = regex_comments.split(line, maxsplit=1)[0]
KeyboardInterrupt

```

In [24]:

```
In [24]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.5967s.
The code executed in 0.4218s.
```

```
In [25]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.5671s.
The code executed in 0.5312s.
```

```
In [26]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.3134s.
The code executed in 0.1731s.
```

```
In [27]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0351s.
The code executed in 0.2092s.
```

```
In [28]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.5530s.
The code executed in 0.0781s.
```

```
In [29]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0763s.
The code executed in 0.0781s.
```

```
In [30]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1090s.
The code executed in 0.0781s.
```

```
In [31]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.3986s.
The code executed in 0.0312s.
```

```
In [32]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.5009s.
The code executed in 0.0469s.
```

```
In [33]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.6255s.
The code executed in 0.0625s.
```

```
In [34]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1308s.
The code executed in 0.0625s.
```

```
In [35]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.4229s.
The code executed in 0.0000s.
```

```
In [36]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1994s.
The code executed in 0.0000s.
```

```

In [37]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1727s.
The code executed in 0.0156s.

In [38]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.9178s.
The code executed in 0.0000s.

In [39]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0841s.
The code executed in 2.0780s.

In [40]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0917s.
The code executed in 2.1092s.

In [41]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0725s.
The code executed in 7.2664s.

In [42]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1140s.
The code executed in 1.2343s.

In [43]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0202s.
The code executed in 0.6093s.

In [44]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.3173s.
The code executed in 0.6406s.

In [45]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0984s.
74
The code executed in 0.6406s.

In [46]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Traceback (most recent call last):

  File "<ipython-input-46-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')

  File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize
\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)

  File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize
\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)

  File "D:/Computation/Primes/temp.py", line 5, in <module>
    prime=np.loadtxt('primes.dat', dtype=int)

  File "C:\ProgramData\Anaconda3\lib\site-packages\numpy\lib\ndarray.py", line 1134, in

```

```

loadtxt
    for x in read_data(_loadtxt_chunksize):

File "C:\ProgramData\Anaconda3\lib\site-packages\numpy\lib\ndpyio.py", line 1049, in
read_data
    for i, line in enumerate(line_iter):

File "C:\ProgramData\Anaconda3\lib\encodings\cp1252.py", line 22, in decode
    def decode(self, input, final=False):

```

KeyboardInterrupt

In [47]:

```

In [47]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0718s.
The code executed in 0.1323s.

```

```

In [48]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1445s.
The code executed in 0.1250s.

```

```

In [49]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0683s.
The code executed in 0.1250s.

```

```

In [50]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0519s.
The code executed in 0.1250s.

```

```

In [51]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1422s.
The code executed in 0.1406s.

```

```

In [52]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0671s.
The code executed in 0.1406s.

```

```

In [53]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1109s.
The code executed in 0.1250s.

```

```

In [54]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0811s.
The code executed in 0.1312s.

```

```

In [55]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Traceback (most recent call last):

```

```

File "C:\ProgramData\Anaconda3\lib\site-packages\IPython\core\interactiveshell.py", line
3296, in run_code
    exec(code_obj, self.user_global_ns, self.user_ns)

```

```

File "<ipython-input-55-486b08d953b7>", line 1, in <module>

```

```
runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)
```

```
File "D:/Computation/Primes/temp.py", line 49
    twin_test():
```

**SyntaxError:** invalid syntax

In [56]:

```
In [56]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1566s.
The code executed in 0.1406s.
```

```
In [57]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0828s.
False
The code executed in 0.1250s.
```

```
In [58]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1778s.
False
The code executed in 0.1406s.
```

```
In [59]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.2695s.
True
The code executed in 0.1406s.
```

```
In [60]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.2339s.
Traceback (most recent call last):
```

```
File "<ipython-input-60-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)
```

```
File "D:/Computation/Primes/temp.py", line 57, in <module>
    twin_test()
```

```
File "D:/Computation/Primes/temp.py", line 54, in twin_test
    print(index(j))
```

**NameError:** name 'index' is not defined

In [61]:

```
In [61]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1713s.
Traceback (most recent call last):
```

```
File "<ipython-input-61-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize
\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize
\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)
```

```
File "D:/Computation/Primes/temp.py", line 57, in <module>
    twin_test()
```

```
File "D:/Computation/Primes/temp.py", line 54, in twin_test
    print(rank(j))
```

**NameError:** name 'rank' is not defined

In [62]:

```
In [62]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1344s.
True
The code executed in 18.6443s.
```

```
In [63]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1049s.
False
The code executed in 19.0675s.
```

```
In [64]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1517s.
False
The code executed in 0.1406s.
```

```
In [65]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1471s.
False
The code executed in 0.1250s.
```

```
In [66]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

Files loaded in 6.1767s.

Traceback (most recent call last):

```
File "<ipython-input-66-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)
```

```
File "D:/Computation/Primes/temp.py", line 57, in <module>
    twin_test()
```

```
File "D:/Computation/Primes/temp.py", line 53, in twin_test
    if j==0:
```

**ValueError:** The truth value of an array with more than one element is ambiguous. Use a.any() or a.all()

In [67]:

```
In [67]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

Files loaded in 6.0519s.

Traceback (most recent call last):

```
File "<ipython-input-67-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)
```

```
File "D:/Computation/Primes/temp.py", line 57, in <module>
    twin_test()
```

```
File "D:/Computation/Primes/temp.py", line 53, in twin_test
    if j==0:
```

**ValueError:** The truth value of an array with more than one element is ambiguous. Use a.any() or a.all()

In [68]:

```
In [68]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

Files loaded in 6.0491s.

Traceback (most recent call last):

```
File "<ipython-input-68-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')

File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)

File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)

File "D:/Computation/Primes/temp.py", line 57, in <module>
    twin_test()

File "D:/Computation/Primes/temp.py", line 53, in twin_test
    if j==0:
```

**ValueError:** The truth value of an array with more than one element is ambiguous. Use a.any() or a.all()

In [69]:

```
In [69]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.3568s.
False
The code executed in 0.1250s.
```

```
In [70]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1309s.
True
The code executed in 0.1250s.
```

```
In [71]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.5363s.
True
The code executed in 0.0312s.
```

```
In [72]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.6925s.
True
The code executed in 0.2969s.
```

```
In [73]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.9084s.
True
The code executed in 0.5468s.
```

```
In [74]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.4698s.
True
The code executed in 3.6247s.
```



```
In [75]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0462s.
True
The code executed in 7.8914s.
```

```
In [76]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 7.0216s.
True
The code executed in 21.7369s.
```

```
In [77]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.2821s.
True
The code executed in 20.5793s.
```

```
In [78]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0629s.
True
The code executed in 109.2013s.
```

```
In [79]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.1451s.
Traceback (most recent call last):
```

```
File "<ipython-input-79-486b08d953b7>", line 1, in <module>
    runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize
\spydercustomize.py", line 786, in runfile
    execfile(filename, namespace)
```

```
File "C:\ProgramData\Anaconda3\lib\site-packages\spyder_kernels\customize
\spydercustomize.py", line 110, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)
```

```
File "D:/Computation/Primes/temp.py", line 45, in <module>
    test[i]=f(2*i)
```

```
File "D:/Computation/Primes/temp.py", line 24, in f
    if j>x:
```

KeyboardInterrupt

```
In [80]:
```

```
In [80]: runfile('D:/Computation/Primes/temp.py', wdir='D:/Computation/Primes')
Files loaded in 6.0672s.
Step 0
Step 500
Step 1000
Step 1500
Step 2000
Step 2500
Step 3000
```

```
Step 3500
Step 4000
Step 4500
True
The code executed in 1258.4922s.
```

```
In [81]: runfile('D:/Computation/Primes/test_2.py', wdir='D:/Computation/Primes')
```

```
Files loaded in 6.8491s.
```

```
Step 0
Step 500
Step 1000
Step 1500
Step 2000
Step 2500
Step 3000
Step 3500
Step 4000
Step 4500
Step 5000
Step 5500
Step 6000
Step 6500
Step 7000
Step 7500
Step 8000
Step 8500
Step 9000
Step 9500
True
The code executed in 9135.7169s.
```

```
In [82]:
```