```
In [ ]:
# Initialize Otter
import otter
grader = otter.Notebook("generate-gradescope.ipynb")
In [1]:
import matplotlib.pyplot as plt
import numpy as np
\textbf{Question 1.} Assign \ \mathbf{x}\  to the smallest prime number.
In [22]:
x = 2 \# SOLUTION
In [ ]:
grader.check("q1")
Question 2. Visualize the answer
In [28]:
## solution ##
plt.plot(x); # SOLUTION NO PROMPT
""" # BEGIN PROMPT
plt.plot(...);
""" # END PROMPT
Out[28]:
' # BEGIN PROMPT\nplt.plot(...);\n'
 2.100
 2.075
 2.050
 2.025
 2.000
 1.975
 1.950
 1.925
 1.900
```

This cell is not part of a question.

-0.02

-0.04

```
In [29]:
y = 3
```

Question 3. Define square and assign nine to 3 squared.

0.00

0.02

0.04

```
In [30]:
```

```
def square(x):
    y = x * x # SOLUTION
    return y # SOLUTION

nine = square(3)
```

In []:

```
grader.check("q3")
```

Question 4. What does equilateral mean?

Type your answer here, replacing this text.

SOLUTION: Having equal side lengths.

```
In [14]:
```

```
# this isn't part of a question
# it's here to make sure that we get a MD cell above to close the export
# of question 4
```

Question 5. Approximate the area and circumference of a circle with radius 3.

```
In [15]:
```

```
pi = 3.14
if True:
    # BEGIN SOLUTION
    radius = 3
    area = radius * pi * pi
    # END SOLUTION
    print('A circle with radius', radius, 'has area', area)

def circumference(r):
    # BEGIN SOLUTION NO PROMPT
    return 2 * pi * r
    # END SOLUTION
    """ # BEGIN PROMPT
    # Next, define a circumference function.
    pass
    """; # END PROMPT
```

A circle with radius 3 has area 29.5788

```
In [16]:
```

```
# This question has no tests.
```

Question 6. Write something

This question has a custom prompt below, so that prompt should be in the output. It also has no solution!

Write your thing here.

SOLUTION: some thing

Question 7: What is the answer?

Type your answer here, replacing this text.

```
SOLUTION: 42
```

Question 8: Test intercell seeding by generating 10 random N(4, 2) numbers.

You're done!

The code below is an example of student-exposed plugins.

```
In [ ]:
grader.run_plugin("myotterpackage.MyOtterPlugin", pi, z, foo=circumference, bar=None, something='else'
)
```

Submission

Make sure you have run all cells in your notebook in order before running the cell below, so that all images/graphs appear in the output. The cell below will generate a zip file for you to submit. **Please save before exporting!**

```
In [ ]:
# Save your notebook first, then run this cell to export your submission.
grader.export()
```