In [ ]:

```
# Initialize Otter
import otter
grader = otter.Notebook()
```

In [1]:

```
import matplotlib.pyplot as plt
import numpy as np
```

Question 1. Assign `x` to the smallest prime number.

In [22]:

```
x = 2 # SOLUTION
```

In [ ]:

```
grader.check("q1")
```

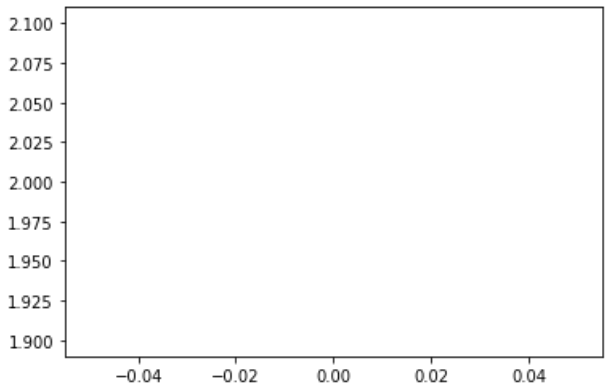
Question 2. Visualize the answer

In [28]:

```
## solution ##
plt.plot(x); # SOLUTION NO PROMPT
""" # BEGIN PROMPT
plt.plot(...);
""" # END PROMPT
```

Out[28]:

```
' # BEGIN PROMPT\nplt.plot(...);\n'
```



This cell is not part of a question.

In [29]:

```
y = 3
```

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

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.

In [35]:

```
z = np.random.normal(4, 2, 10) # SOLUTION
z
```

Out[35]:

```
array([4.99342831, 3.7234714 , 5.29537708, 7.04605971, 3.53169325,
       3.53172609, 7.15842563, 5.53486946, 3.06105123, 5.08512009])
```

In [ ]:

```
grader.check("q8")
```

You're done!

In [ ]:

```

```

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("generate-gradescope.ipynb")
```