Exercise 1: my first exercise

Here goes a general introduction to the exercise.

a) Predict what this code will do

```
a = 2
b = 3
for i in range(a, b):
    print(i)

2
```

Answer. Prints `2`

b) Modify the program so that it prints 2, 3 and 4.

Answer. There are many ways to do this. We will show two of them.

Solution.

```
a = 2
b = 5
for i in range(a, b):
    print(i)

2
3
4
```

An alternative:

```
a = 1
b = 4
for i in range(a, b):
    print(i + 1)

2
3
4
```

Exercise 2: my second exercise

Here goes a general introduction to the exercise.

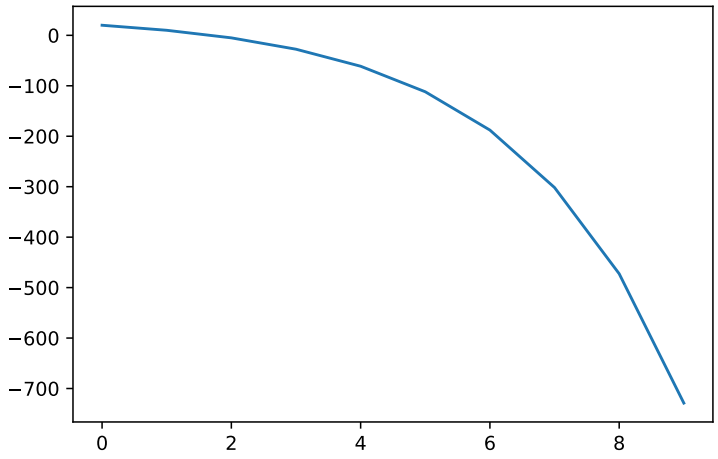
a) Implement this difference equation in Python and generate a plot for values of x from 1 to 10.

$$x_{n+1} = 1.5x_n - 20x_0 = 20 \tag{1}$$

Solution.

```
from matplotlib import pyplot as plt
x = [20]
i = 1
while i < 10:
    x.append(1.5 * x[i-1] - 20)
    i = i + 1

plt.plot(x)
plt.show()
```



b) Question without code answer: Can you think of an example case that has this difference equation as model?

Answer. Not really.

c) Another question without code answer.

Answer. Nothing to answer...