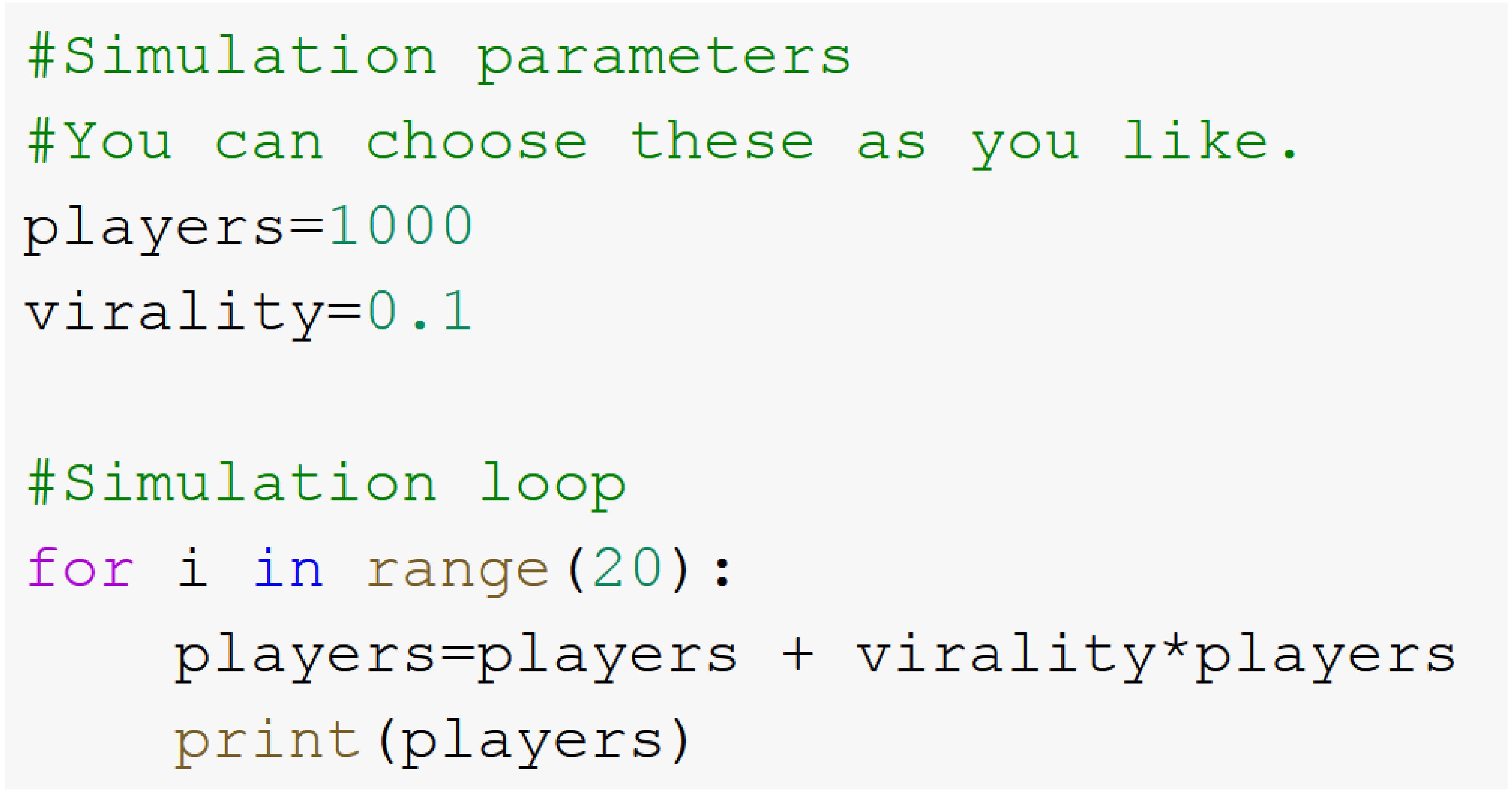
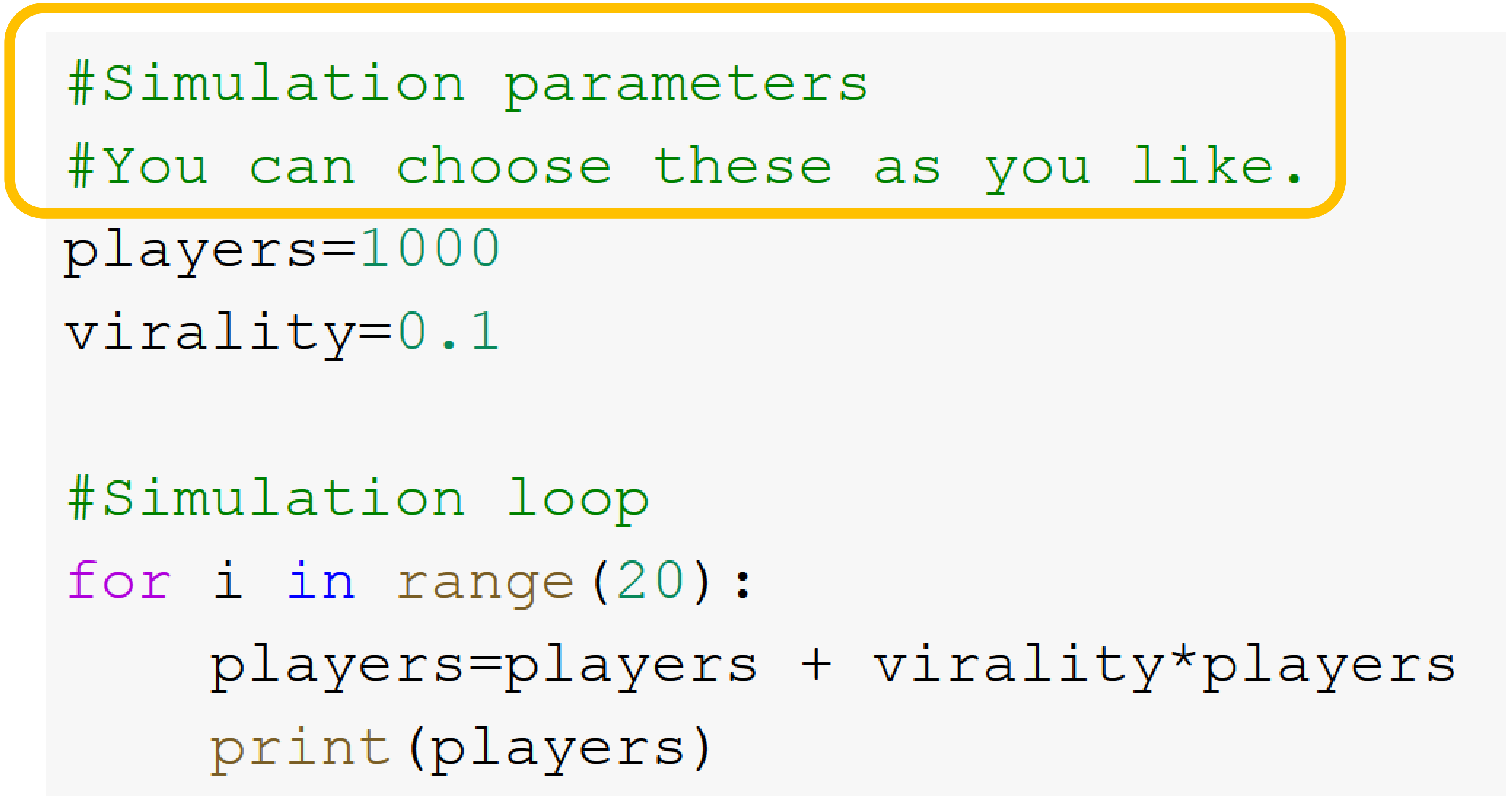
This is the first Python simulation in the RetentionAndVirality notebook. Let’s investigate it more closely to learn Python syntax...



```python
#Simulation parameters
#You can choose these as you like.
players=1000
virality=0.1

#Simulation loop
for i in range(20):
    players=players + virality*players
    print(players)
```

# means that the rest of the line is comments that explain the code.
The computer running the code ignores these.



```
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for i in range(20):
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    print(players)
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This introduces a variable called ”players” and sets its value to 1000. Python does not need type specifiers like C#’s ”int players=1000”

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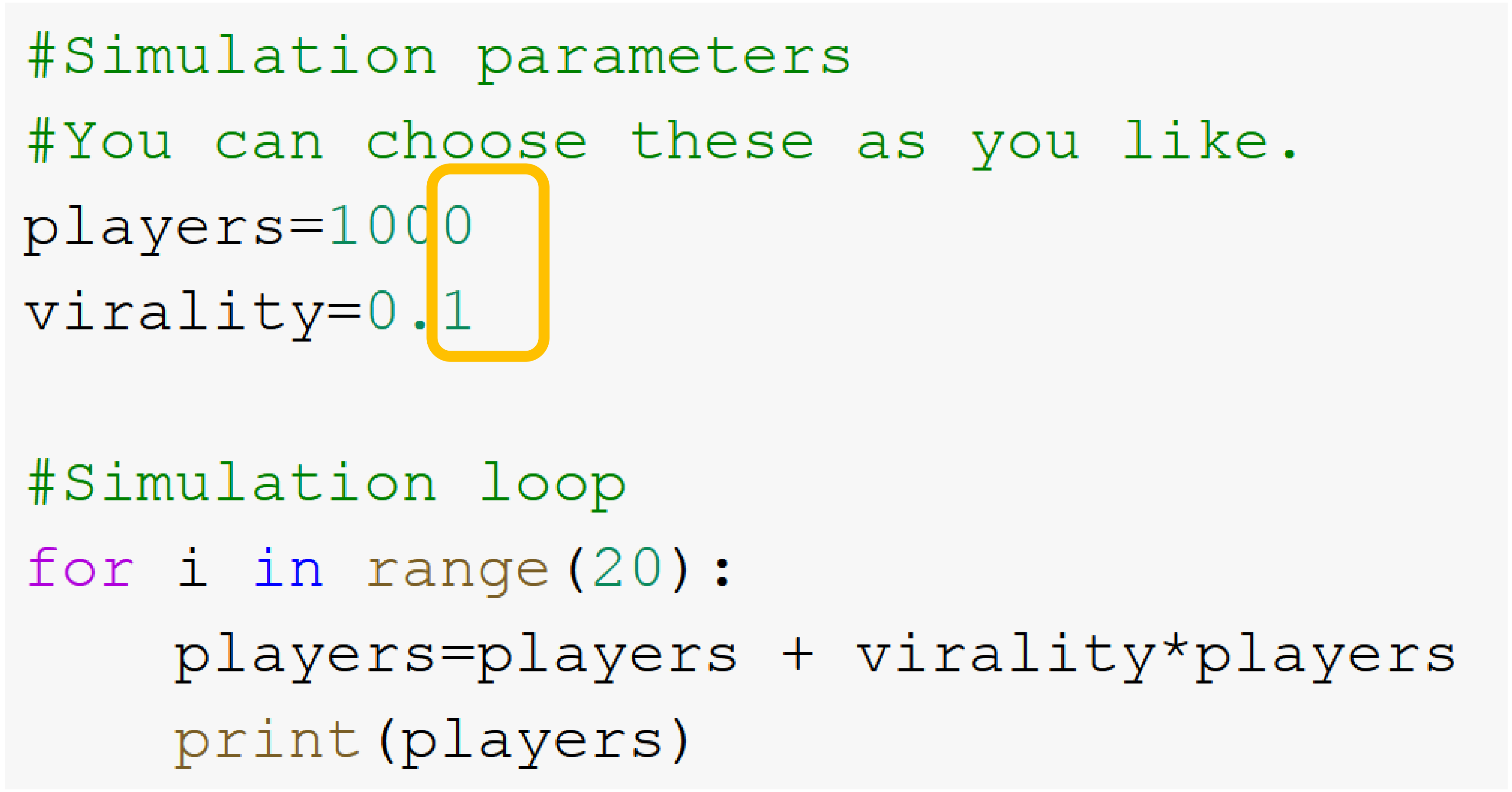
In Python, you don’t need to add the ”;” at the end of a line.



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This declares a loop: All code inside the loop is run for 20 times.
In C#, this would be ”for (int i=0; i<20; i++)”

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```

For loop declaration ends with ":"

```
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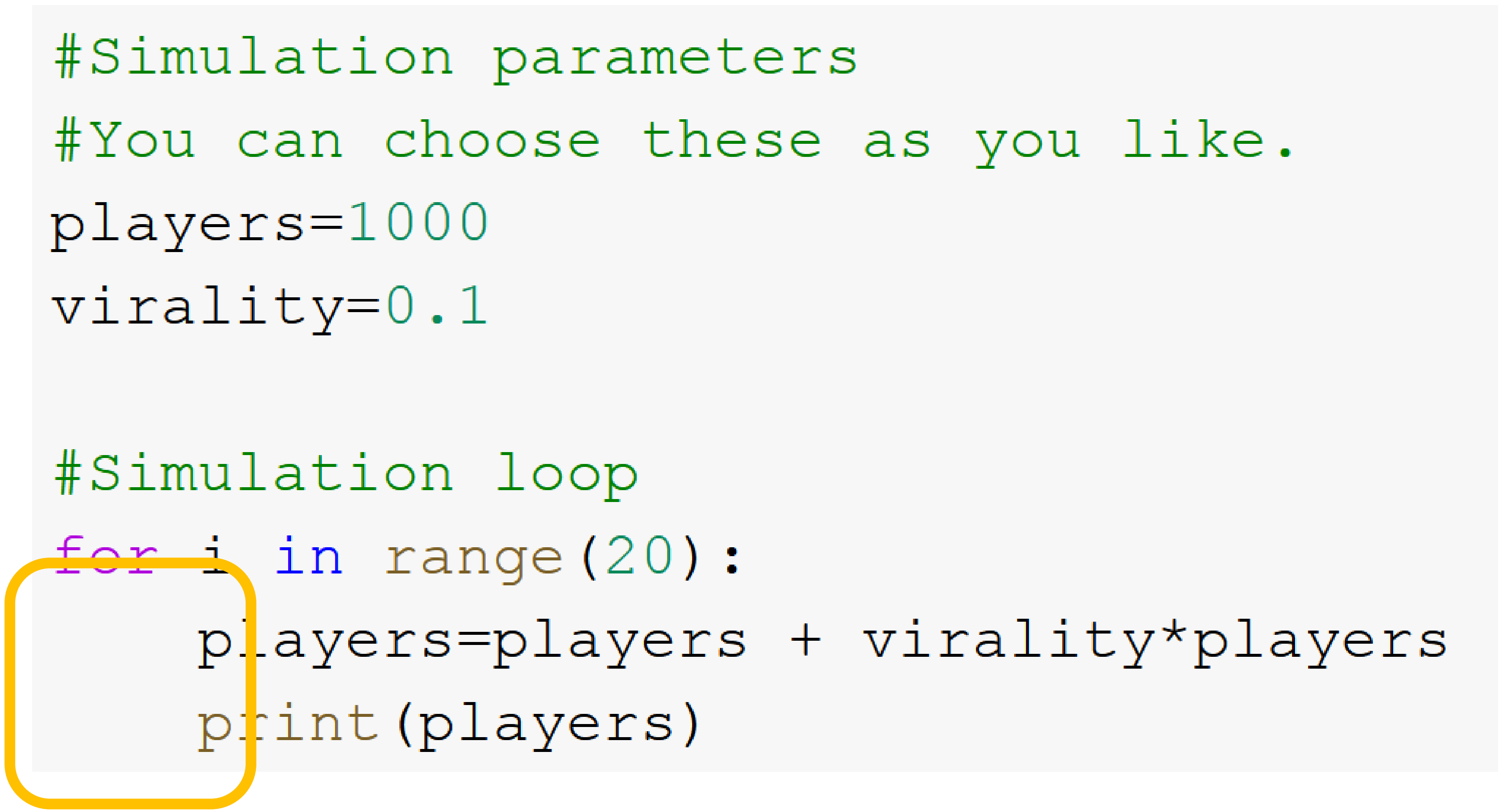
Everything after the ":" that is intended belongs inside the loop. In C#, the loop contents would be inside curly brackets.



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    print(players)
```
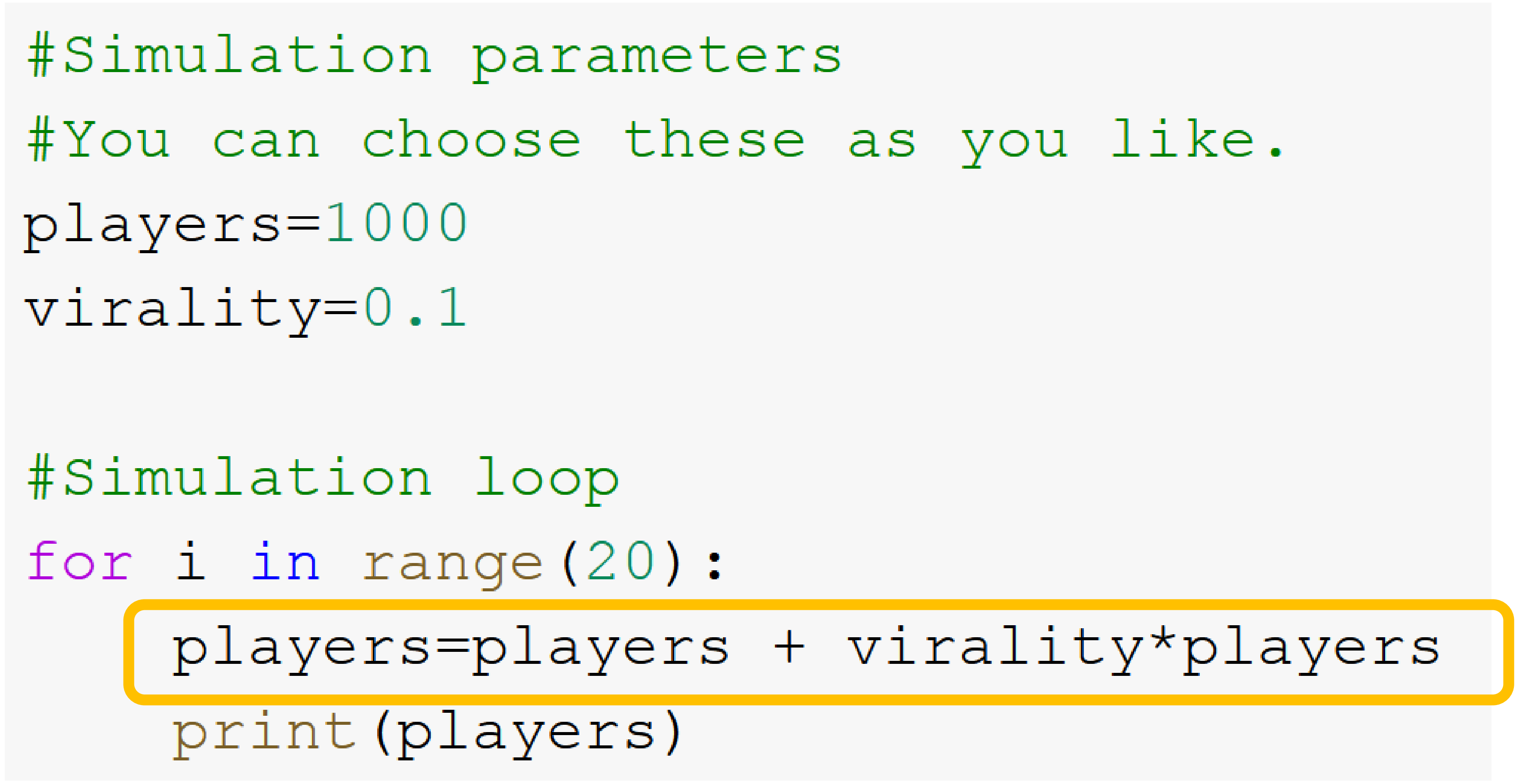

This assigns the variable ”players” a new value based on its old value and the virality parameter. Mathematical expressions follow standard rules: Multiplication is executed before addition.



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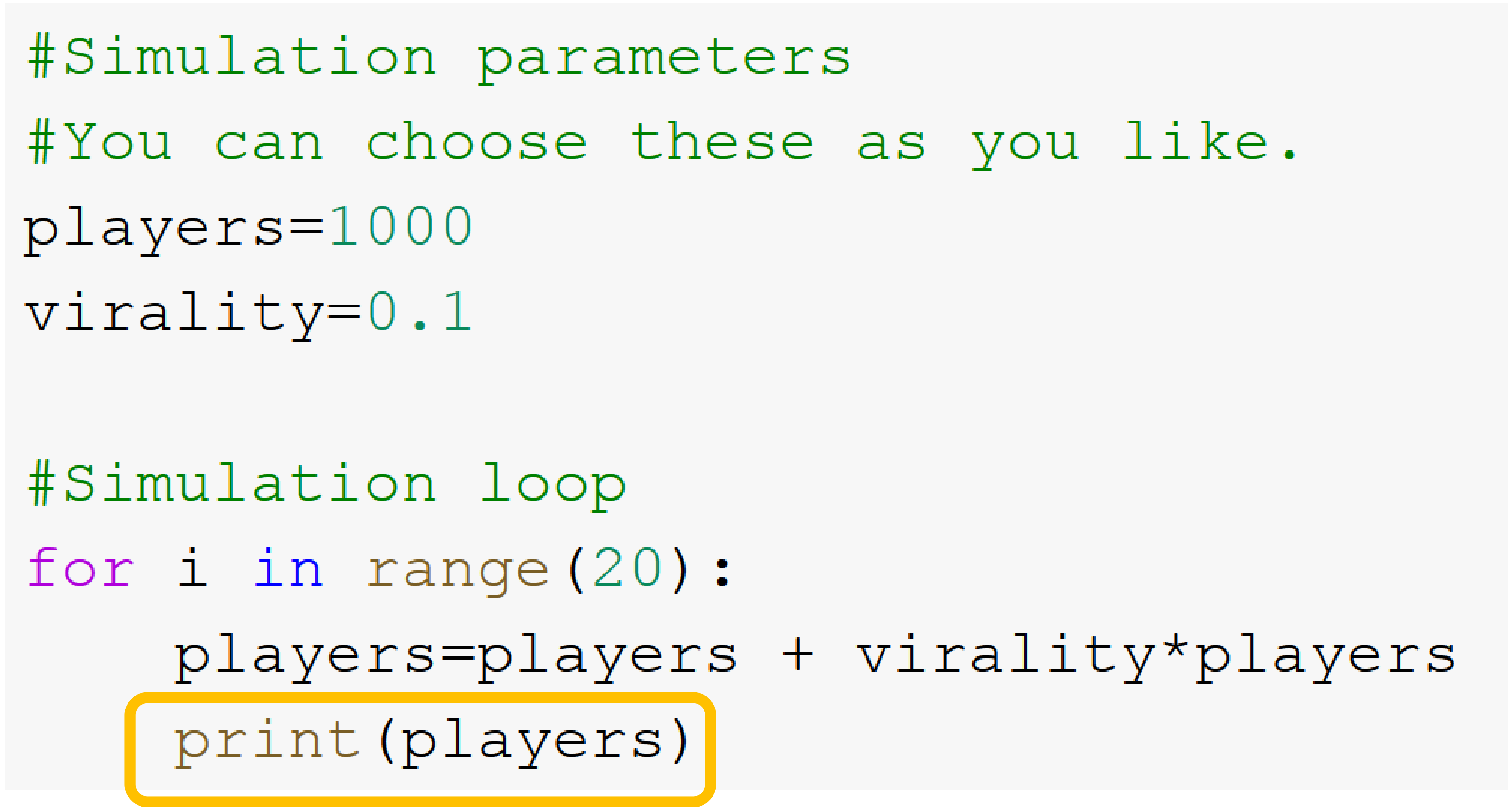
The print function prints things into the Colab output. In Python, print usually works no matter the variable type.



```python
#Simulation parameters
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#Simulation loop
for i in range(20):
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