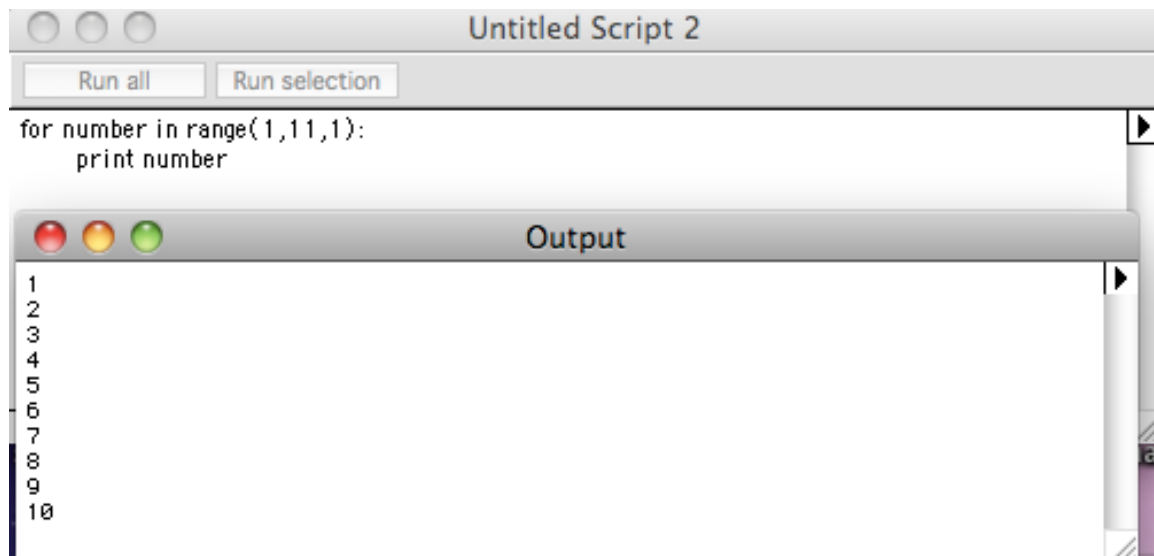


# For Loops

For loops are used to repeat a block of code a specified number of times. It can also be used to print sequences and find the sum of sequences.

**Example 1: We are printing the sequence of numbers from 1 – 10.**



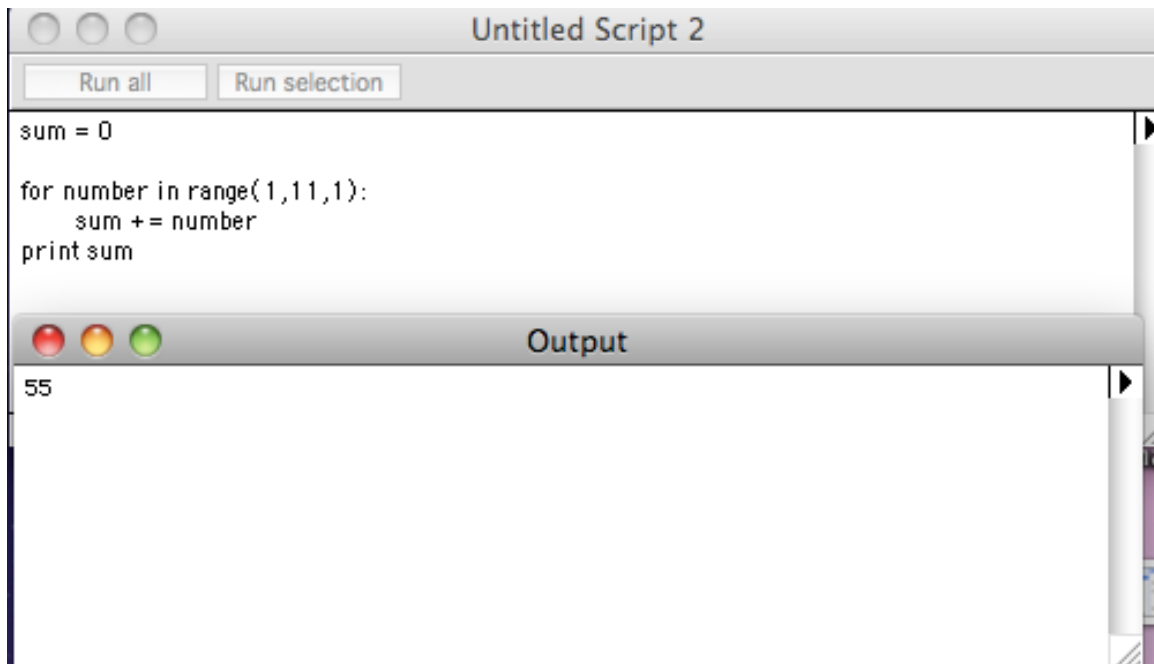
```
Untitled Script 2
Run all Run selection
for number in range(1,11,1):
    print number

Output
1
2
3
4
5
6
7
8
9
10
```

- The word number is a variable that will change its value each time through the loop.
- (1,11,1)...the first number is the starting number. The second number is the ending number -1. The third number is the increment the sequence increases (or decreases) by. So, we are going from 1 – 10 by 1 in this example).
- If you want to print the numbers horizontally use a comma after print number

**Example 2: We are finding the sum of the sequence of numbers from 1-10.**

- We have to initialize the sum variable to 0 in the beginning. Otherwise it will add on to the previous value of sum.
- `sum+=number` Each time the loop runs, the new value of number is added to the existing sum. This equation is equivalent to `sum = sum + number`.
- The print sum line must be outdented under the for loop so it only prints the final sum.



**Example 3: Calculate and print the numbers 1-10 cubed.**

