

2.3 For loops, While loops

“**For loops**” execute the indented code as many times as the loop is told to.

- If passed a list, it will go through the list, item by item.
- If passed a range of numbers, it will go through them, one by one.
- If passed a string, it will go through it character by character.

```
fruits = ["apple", "banana", "cherry"]
for x in fruits:
    print(x)
```

```
for x in "banana":
    print(x)
```

You can stop a “for loop” from continuing by using `break`:

```
fruits = ["apple", "banana", "cherry"]
for x in fruits:
    print(x)
    if x == "banana":
        break
```

```
fruits = ["apple", "banana", "cherry"]
for x in fruits:
    if x == "banana":
        break
    print(x)
```

```
for x in range(6):
    print(x)
```

```
for x in range(2, 30, 3):  
    print(x)
```

“while loops” execute the indented code as long as the conditional statement is true.

```
i = 1  
while i < 6:  
    print(i)  
    i = i + 1
```

```
x = 1  
while(True):  
    print(x)  
    if x == 3:  
        break  
    x = x + 1
```

2.3 Random numbers

To get random numbers in Python 3, you'll need to import `random` and then call `random.randint()`

```
import random  
print(random.randint(1,10))
```

```
import random  
dice1 = random.randint(1,6)  
dice2 = random.randint(1,6)  
print(dice1)  
print(dice2)
```