

Breaking Out of Loops

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Sometimes you want to exit a loop before it's finished, or skip the remainder of a loop and move to the next iteration. To do this you can use the **break** and **continue** statements respectively.

break

As a first example, consider:

```
[1]: for i in range(10):  
      print(i)  
  
      if i == 5:  
          break
```

```
0  
1  
2  
3  
4  
5
```

where you can see that the loop terminated before it was finished iterating through **range(10)**. The **break** may be inside the **if** statement, but it's the loop that it affects.

The **break** statement exits the first loop that it's nested in. For example, if we had multiple nested loops:

```
[5]: for i in range(3):  
      print('Loop1', i)  
      for j in range(3):  
          print('    Loop2', j)  
  
          if j == 1:  
              break
```

```
Loop1 0  
    Loop2 0  
    Loop2 1  
Loop1 1
```

```
    Loop2 0
    Loop2 1
Loop1 2
    Loop2 0
    Loop2 1
```

We can see that the outer loop (Loop1) iterated through all of `range(3)`, while Loop2 terminates before it can reach the last iteration.

continue

If you want to end the current loop iteration, but you don't want to break out of the loop, you can use the `continue` statement.

```
[9]: for i in range(10):
      if i == 5:
          continue
      print(i)
```

```
0
1
2
3
4
6
7
8
9
```

As you can see in the example above, 5 is not printed.