Python course materials

# Comparison Operators

In this lecture we will be learning about Comparison Operators in Python. These operators will allow us to compare variables and output a Boolean value (True or False).

If you have any sort of background in Math, these operators should be very straight forward.

First we’ll present a table of the comparison operators and then work through some examples:

Table of Comparison Operators

In the table below, a=3 and b=4.

Operator

Description

Example

==

If the values of two operands are equal, then the condition becomes true.

(a == b) is not true.

!=

If values of two operands are not equal, then condition becomes true.

(a != b) is true

>

If the value of left operand is greater than the value of right operand, then condition becomes true.

(a > b) is not true.

<

If the value of left operand is less than the value of right operand, then condition becomes true.

(a < b) is true.

>=

If the value of left operand is greater than or equal to the value of right operand, then condition becomes true.

(a >= b) is not true.

<=

If the value of left operand is less than or equal to the value of right operand, then condition becomes true.

(a <= b) is true.

Let’s now work through quick examples of each of these.

#### Equal

2 == 2

True

1 == 0

False

Note that == is a comparison operator, while = is an assignment operator.

#### Not Equal

2 != 1

True

2 != 2

False

#### Greater Than

2 > 1

True

2 > 4

False

#### Less Than

2 < 4

True

2 < 1

False

#### Greater Than or Equal to

2 >= 2

True

2 >= 1

True

#### Less than or Equal to

2 <= 2

True

2 <= 4

True

**Great! Go over each comparison operator to make sure you understand what each one is saying. But hopefully this was straightforward for you.**

Next we will cover chained comparison operators