

# Flow Control (Boolean Operators)

Chapter 02a

# REVIEW: Use **Comparison Operators** for Control Flow

Operator	Meaning
<b>==</b>	<b>Equal to</b>
<b>!=</b>	<b>No equal to</b>
<b>&lt;</b>	<b>Less than</b>
<b>&gt;</b>	<b>Greater than</b>
<b>&lt;=</b>	<b>Less than or equal to</b>
<b>&gt;=</b>	<b>Greater than or equal to</b>
<b>&gt;, &lt;, &gt;=, &lt;= work only with integer or floating numbers</b>	

# REVIEW: Boolean Values

- Only has two values: **True** and **False**
- Type case exactly as above: Capital T and Capital F.

# Boolean Operators

- **and**
- **or**
- **not**

**and** Operator – when you use “and”, all conditions must be True

if <b>firstCondition</b> and <b>secondCondition</b> :		
First condition is	Second condition is	Statement is
True	True	True
True	False	False
False	True	False
False	False	False

**or** Operator – when you use “or”, just one condition must be True

if <b>firstCondition</b> or <b>secondCondition</b> :		
First condition is	Second condition is	Statement is
True	True	True
True	False	True
False	True	True
False	False	False

# not Operator

Operator	Evaluates to
not True	False
not False	True

# Order of Operations

- Math and Comparison Operators
- not
- and
- or



If you win the lottery and the prize is over a million dollars then retire to a life of luxury.

- Sometimes the decision on whether to take the next step depends on a combination of factors.
- If I win the lottery, but only win \$5 I can't retire.
- If the lottery give out a million dollars but I didn't win, I can't retire.
- I can only retire if I win the lottery and the prize was over a million dollars.

The “and” is only evaluated as True if both conditions are True

```
wonLottery = True
```

```
bigWin = True
```

#print statement only executes if both conditions are True.

```
if wonLottery and bigWin:  
    print("You can retire")
```