# Comparison Operators

In [1]: `10 == 10`

Out[1]: True

In [2]: `10!=50`

Out[2]: True

In [3]: `'Vanilla' == 'Vanilla'`

Out[3]: True

In [4]:
```
x='Vanilla'
y='Chocolate'
x!=y
```

Out[4]: True

In [5]: `10 < 50`

Out[5]: True

In [6]: `10 <= 10`

Out[6]: True

# Logical Operators

```
Operator                        Description
and                             Returns True if both statements are true
or                              Returns True if one of the statements is
true
not                             Returns the result, returns False if the
result is true
```

In [15]:
```
##Operator          Description
##and               Returns True if both statements are true
##or                Returns True if one of the statements is true
##not               Returns the result, returns False if the result is true

(10 > 50) and (50 > 10)
```

Out[15]: False

In [16]:
```python
('Vanilla' > 'Chocolate') and (50>10)
```

Out[16]: True

In [17]:
```python
('Vanilla' > 'Chocolate') or (50<10)
```

Out[17]: True

In [18]:
```python
not (50>10)
```

Out[18]: False

# Membership Operators

In [19]:
```python
ice_cream = 'I love chocolate ice cream'
'love' in ice_cream
```

Out[19]: True

In [20]:
```python
scoops = [1,2,3,4,5]
6 not in scoops
```

Out[20]: True