In [ ]:
```
#Arithematic Operations In Numpy
```

In [1]:
```
import numpy as np
```

In [2]:
```
a = np.array([10,10,10])
b = np.array([20,20,20])
```

In [ ]:
```

```

In [3]:
```
a + b
```

Out[3]:
```
array([30, 30, 30])
```

In [4]:
```
a - b
```

Out[4]:
```
array([-10, -10, -10])
```

In [5]:
```
b - a
```

Out[5]:
```
array([10, 10, 10])
```

In [6]:
```
a * b
```

Out[6]:
```
array([200, 200, 200])
```

In [7]:
```
a / b
```

Out[7]:
```
array([0.5, 0.5, 0.5])
```

In [8]:
```
b / a
```

Out[8]:
```
array([2., 2., 2.])
```

In [9]:
```
b > a
```

Out[9]:
```
array([ True,  True,  True])
```

In [10]:
```
a > b
```

Out[10]:
```
array([False, False, False])
```

In [ ]:
```

```

In [11]:
```
#Modifying an existing array
```

In [15]:
```
a*=4
a
```

Out[15]:
```
array([2560, 2560, 2560])
```

In [17]:
```
a-=2520
a
```

Out[17]:
```
array([40, 40, 40])
```

In [18]:
```
a
```

Out[18]:
```
array([40, 40, 40])
```

In [19]:
```
b+=a
b
```

Out[19]:
```
array([60, 60, 60])
```

In [ ]:
```

```

In [20]:
```
#Unary operators
```

In [21]:
```
ages = np.array([9,11,13,18])
```

```
In [ ]: ages
```

```
Out[21]: array([ 9, 11, 13, 18])
```

```
In [22]: ages.min()
```

```
Out[22]: 9
```

```
In [23]: ages.max()
```

```
Out[23]: 18
```

```
In [24]: ages.sum()
```

```
Out[24]: 51
```

```
In [ ]:
```

```
In [25]: numbers = np.arange(12).reshape(4,3)
         numbers
```

```
Out[25]: array([[ 0,  1,  2],
                [ 3,  4,  5],
                [ 6,  7,  8],
                [ 9, 10, 11]])
```

```
In [26]: numbers.sum(axis = 0)
```

```
Out[26]: array([18, 22, 26])
```

```
In [27]: numbers.sum(axis = 1)
```

```
Out[27]: array([ 3, 12, 21, 30])
```

```
In [28]: numbers.max(axis = 0)
```

```
Out[28]: array([ 9, 10, 11])
```

In [29]:
```
numbers.max(axis = 1)
```

Out[29]:
```
array([ 2,  5,  8, 11])
```

In [30]:
```
numbers.min(axis = 0)
```

Out[30]:
```
array([0, 1, 2])
```

In [31]:
```
numbers.min(axis = 1)
```

Out[31]:
```
array([0, 3, 6, 9])
```

In [ ]:
```

```