Simple Arithmetic

We could use arithmetic operators + - * / directly between Numpy arrays

All of the discussed arithmetic functions take a `where` parameter in which we can specify that condition.

e.g Add the values in arr1 to the values in arr2.

```
import numpy as np
arr1 = np.array([10,11,12,13,14,15])
arr2 = np.array([20,21,22,23,24,25])
newarr = np.add(arr1,arr2)
print(newarr)
```

O/P

[30 32 34 35 38 40]

Substraction

The subtract() function subtracts the values from one array with the values from another array, and return the results in a new array.

```
import numpy as np
arr1 = np.array([10,20,30,40,50,60])
arr2 = np.array([20,21,22,23,24,25])
newarr = np.subtract(arr1, arr2)
print(newarr)
```

O/P

[-10 -18 8 A 2635]

Multiplication

The multiply( ) function multiplies the values from one array with the values from another array.

e.g

```
import numpy as np
arr1 = np.array([10,20,30,40,50,60])
arr2 = np.array([20,21,22,23,24,25])
newarr = np.multiply(arr1,arr2)
print(newarr)
```

O/P

[200 420 660 920 1200 1500]

Division

divide() function is used.

```
import numpy as np
arr1 = np.array([10,20,30,40,50,60])
arr2 = np.array([3,5,10,8,2,33])
newarr = np.divide(arr1,arr2)
print(newarr)
```

[3.33333 4.3 5. 25. 1.81818182]

Power

The power() function is used.

```
import numpy as np
arr1 = np.array([10,20,30,40,50,60])
arr2 = np.array([3,5,6,8,2,33])
newarr = np.power(arr1,arr2)
print(newarr)
```

O/P

[1000 3200000 729000000 655360000 25000000]

Remainder

Both mod() and the remainder() function.

```
import numpy as np
arr1 = np.array([10,20,30,40,50,60])
arr2 = np.array([3,7,9,8,2,33])
newarr = np.mod(arr1,arr2)
print(newarr)
```

O/P

```
[1 6 3 0 0 27]
```

Quotient and Mod

The divmod() function.

```
import numpy as np
arr1 = np.array([10,20,30,40,50,60])
arr22 np.array([3,7,9,8,2,33])
newarr = np.divmod(arr1, arr2)
print(newarr)
```

O/P

```
(array([3,2,3,5,25,1]),array(1,6,3,0,0,27))
```

Absolute Values

Both the absolute() and the abs() function return the quotient and mod.

```
import numpy as np
arr2 np.array([-1,-2,1,2,3,-4])
newarr = np.absolute(arr)
print(newarr)
```

O/P

```
[1 2 1 2 3 4]
```