Chapter 5 - Basic Math and Statistics

Segement 1 - Using NumPy to Perform Arithmetic Operations on Data

In [1]:
```
import numpy as np
from numpy.random import randn
```

In [2]:
```
np.set_printoptions(precision=2)
```

Creating arrays

Creating arrays using a list

In [3]:
```
a = np.array([1,2,3,4,5,6])
a
```

Out[3]:
```
array([1, 2, 3, 4, 5, 6])
```

In [5]:
```
b = np.array([[10,20,30], [40,50,60]])
b
```

Out[5]:
```
array([[10, 20, 30],
       [40, 50, 60]])
```

Creating arrays via assignment

In [7]:
```
np.random.seed(25)
c = 36*np.random.randn(6)
c
```

Out[7]:
```
array([  8.22,  36.97, -30.23, -21.28, -34.45,  -8.  ])
```

In [9]:
```
d = np.arange(1, 35)
d
```

Out[9]:
```
array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11, 12, 13, 14, 15, 16, 17,
       18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34])
```

Performing arithmetic on arrays

In [11]:
```
a*10
```

Out[11]:
```
array([10, 20, 30, 40, 50, 60])
```

In [12]:
```
c + a
```

Out[12]:
```
array([  9.22,  38.97, -27.23, -17.28, -29.45,  -2.  ])
```

In [13]:
```
c - a
```

Out[13]:
```
array([  7.22,  34.97, -33.23, -25.28, -39.45, -14.  ])
```

In [14]:
```
c * a
```

Out[14]:
```
array([   8.22,   73.94,  -90.68,  -85.13, -172.24,  -48.02])
```

In [15]:
```
c / a
```

Out[15]:
```
array([  8.22,  18.48, -10.08,  -5.32,  -6.89,  -1.33])
```

In [ ]:
```

```