

## Chapter 5 - Basic Math and Statistics

## Segement 2 - Multiplying Matrices and Basic Linear Algebra

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

```
In [3]: np.set_printoptions(precision=2)
```

Multiplying matrices and basic linear algebra

```
In [5]: aa = np.array([[2.,4.,6.],[1.,3.,5.],[10.,20.,30.]])
        aa
```

```
Out[5]: array([[ 2.,  4.,  6.],
               [ 1.,  3.,  5.],
               [10., 20., 30.]])
```

```
In [9]: bb = np.array([[0.,1.,2.],[3.,4.,5.],[6.,7.,8.]])
        bb
```

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

```
In [10]: aa*bb
```

```
Out[10]: array([[ 0.,  4., 12.],
                [ 3., 12., 25.],
                [60., 140., 240.]])
```

```
In [11]: np.dot(aa,bb)
```

```
Out[11]: array([[ 48.,  60.,  72.],
                [ 39.,  48.,  57.],
                [240., 300., 360.]])
```