In [5]:

```python
import numpy as np
a = np.array([[1,2,3],[4,5,6]])
a.shape = (3,2)
print (a)
```

```
[[1 2]
 [3 4]
 [5 6]]
```

In [4]:

```python
import numpy as np
a = np.array([[[1,2,3],[4,5,6]],[[1,2,2],[2,2,1]]])
# a=a.reshape(3,2)
print (a)
print(np.arange(1,20))
print(a.ndim)
print(a.shape)
```

```
[[[1 2 3]
  [4 5 6]]

 [[1 2 2]
  [2 2 1]]]
[ 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19]
3
(2, 2, 3)
```

In [6]:

```python
import numpy as np
x = np.empty([3,2], dtype = int)
print (x)
```

```
[[5242959 4259885]
 [5308469 5046325]
 [4522051      84]]
```

In [21]:

```python
import numpy as np
x = np.zeros(5,dtype=int)
print (x)
```

```
[[0 0 0 0 0]]
```

In [22]:

```python
import numpy as np
a= np.array([[30,65,70],[80,95,10],[50,90,60]])
print(np.median(a))
print(np.median(a, axis=0))
print(np.median(a,axis=1))
```

```
65.0
[50. 90. 60.]
[65. 80. 60.]
```

In [23]:

```python
import numpy as np
a = np.array([[1,2,3],[3,4,5],[4,5,6]])
print(np.mean(a))
print(np.mean(a,axis=0))
print(np.mean(a,axis=1))
```

```
3.6666666666666665
[2.66666667 3.66666667 4.66666667]
[2. 4. 5.]
```

```python
import numpy as np
a = np.array([1,2,3,4])
print(np.average(a))
wts = np.array([4,3,2,1])
print(np.average(a,weights=wts))
```

```
2.5
2.0
```