In [1]:

```
import numpy as np
```

In [9]:

```
a=[4,1,3,5,6]
ar=np.array(a)
print(ar)
print(type(ar))
```

```
[4 1 3 5 6]
<class 'numpy.ndarray'>
```

In [11]:

```
print(ar.shape)
```

```
(5,)
```

In [10]:

```
print(ar[1])
print(ar[0])
```

```
1
4
```

In [13]:

```
print(ar.reshape(1,5))
print(ar.reshape(5,1))
```

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

In [15]:

```
ar1=ar.reshape(1,5)
ar2=ar.reshape(5,1)
print(ar1.shape)
print(ar2.shape)
```

```
(1, 5)
(5, 1)
```

In [19]:

```
b=[5,4,3]
c=[9,8,7]
d=[13,12,11]
ar3=np.array([b,c,d])
print(type(ar3))
print(ar3)
print(ar3.shape)
```

```
<class 'numpy.ndarray'>
[[ 5  4  3]
 [ 9  8  7]
 [13 12 11]]
(3, 3)
```

In [21]:

```
print(ar3.reshape(1,9))
```

```
print(ar3.reshape(9,1))
```

```
[[ 5  4  3  9  8  7 13 12 11]]
[[ 5]
 [ 4]
 [ 3]
 [ 9]
 [ 8]
 [ 7]
 [13]
 [12]
 [11]]
```

In [22]:

```
print(ar3)
```

```
[[ 5  4  3]
 [ 9  8  7]
 [13 12 11]]
```

In [24]:

```
e=[1,2,3,4,5]
f=[7,8,9,3,5]
g=[8,9,6,7,8]
h=[6,6,8,9,4]
ar4=np.array([e,f,g,h])
print(ar4)
```

```
[[1 2 3 4 5]
 [7 8 9 3 5]
 [8 9 6 7 8]
 [6 6 8 9 4]]
```

In [25]:

```
print(ar4[2:,1:3])
```

```
[[9 6]
 [6 8]]
```

In [26]:

```
print(ar4[1:,1:])
```

```
[[8 9 3 5]
 [9 6 7 8]
 [6 8 9 4]]
```

In [27]:

```
print(ar4[1:3,:2])
```

```
[[7 8]
 [8 9]]
```

In [ ]:

```

```