Experiment 10

```
import numpy as np
```

```
A=[10,23,45]
B=[2,5,8]
```

```
arr1=np.array(A)
```

```
arr2=np.array(B)
```

```
arr1+arr2
```

```
array([12, 28, 53])
```

```
arr1/arr2
```

```
array([5.   , 4.6  , 5.625])
```

```
arr1/3
```

```
array([ 3.33333333,  7.66666667, 15.        ])
```

```
arr1
```

```
array([10, 23, 45])
```

```
arr1.dtype
```

```
dtype('int64')
```

```
s=arr1
type(s)
```

```
numpy.ndarray
```

```
arr1.ndim
```

```
1
```

```
# 2D:
```

```
A=[10,20,30]
B=[45,67,89]
```

```
arr4=np.array([A,B])
```

```
arr4
```

```
array([[10, 20, 30],
       [45, 67, 89]])
```

```
arr4.ndim
```

```
2
```

```
arr4.shape
```

```
(2, 3)
```

```
np.arange(10)
```

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

```
np.arange(1, 10, 0.2)
```

```
array([1. , 1.2, 1.4, 1.6, 1.8, 2. , 2.2, 2.4, 2.6, 2.8, 3. , 3.2, 3.4,
       3.6, 3.8, 4. , 4.2, 4.4, 4.6, 4.8, 5. , 5.2, 5.4, 5.6, 5.8, 6. ,
       6.2, 6.4, 6.6, 6.8, 7. , 7.2, 7.4, 7.6, 7.8, 8. , 8.2, 8.4, 8.6,
       8.8, 9. , 9.2, 9.4, 9.6, 9.8])
```

```
np.linspace(1,10,5)
```

```
array([ 1.  ,  3.25,  5.5 ,  7.75, 10.  ])
```

```
np.random.randint(10,50,10)
```

```
array([47, 15, 15, 45, 43, 35, 10, 16, 16, 15])
```

```
np.random.randint(2,3,45) # Start is Inclusive
```

```
array([2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
       2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
       2])
```

```
x=np.random.rand()
type(x)
```

```
float
```

```
arr1
```

```
array([10, 23, 45])
```

```
arr1=np.random.randint(10,2000,12)
```

```
arr1
```

```
array([ 364,  879, 1114,  225,  256, 1306,  873, 1452,  973, 1402, 1331,
       1993])
```

```
np.max(arr1)
```

```
1993
```

```
np.min(arr1)
```

```
225
```

```
np.mean(arr1)
```

```
1014.0
```

```
np.median(arr1)
```

```
1043.5
```