MATHEMATICS

In [1]:
```
import numpy as np
```

In [3]:
```
a=np.array([1,2,3])
print(a*2)
print(a+2)
print(a-2)
print(a/2)
print(a%2)
```

```
[2 4 6]
[3 4 5]
[-1  0  1]
[0.5 1.  1.5]
[1 0 1]
```

In [8]:
```
b=np.array([4,5,6])
print(a+b)
print(b**2)
```

```
[5 7 9]
[16 25 36]
```

In [11]:
```
X=np.array([3,60,45,0,90,120])
print(np.sin(X))
```

```
[ 0.14112001 -0.30481062  0.85090352  0.          0.89399666  0.58061118]
```

LINEAR ALGEBRA

In [12]:
```
a=np.ones((2,3))
b=np.full((3,4),2)
c=np.matmul(a,b)
print(c)
```

```
[[6. 6. 6. 6.]
 [6. 6. 6. 6.]]
```

In [13]:
```
#find the determinant
c=np.identity(3)
print(np.linalg.det(c))
```

```
1.0
```

Statistics

In [23]:
```
stats=np.array([[1,2,3],[4,5,6]])
print(np.min(stats))
print(np.max(stats))
print(np.min(stats,axis=1))
print(np.max(stats,axis=1))
print(np.min(stats,axis=1))
print(np.max(stats,axis=1))
```

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

In [24]:
```
a=np.sum(stats)
print(a)
```

```
21
```

In [ ]:

In [ ]: