```
import numpy as np
a=np.array([1,2,5,4])
b=np.array([6,2,9,4])
print(a==b)
print(a>b)
print(a<b)
```

```
[False  True False  True]
[False False False False]
[ True False  True False]
```

```
print(np.array_equal(a,b))
```

```
False
```

```
c=np.array([1,2,5,4])
print(np.array_equal(a,c))
```

```
True
```

```
a=np.array([1,0,0,1],dtype='bool')
b=np.array([0,1,0,1],dtype='bool')
print(np.logical_or(a,b))
```

```
[ True  True False  True]
```

```
print(np.logical_and(a,b))
```

```
[False False False  True]
```

```
print(np.logical_not(a,b))
```

```
[False  True  True False]
```

```
a=np.arange(5)+1
print(np.sin(a))
```

```
[ 0.84147098  0.90929743  0.14112001 -0.7568025  -0.95892427]
```

```
print(np.log(a))
print(np.exp(a))
```

```
[0.         0.69314718 1.09861229 1.38629436 1.60943791]
[  2.71828183   7.3890561   20.08553692  54.59815003 148.4131591 ]
```

```
a=np.array([1,2,3,4])
b=np.array([5,10])
print(a+b)
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-15-f8e2422298ab> in <cell line: 3>()
      1 a=np.array([1,2,3,4])
      2 b=np.array([5,10])
----> 3 print(a+b)

ValueError: operands could not be broadcast together with shapes (4,) (2,)
```

```
x=np.array([1,2,3,4])
print(np.sum(x))
```

```
10
```

```
y=np.array([[1,2],[3,4]])
print(y)
print("*"*100)
print(y.T)
```

```
[[1 2]
 [3 4]]
****************************************************************************************************
```

```
[[1 3]
 [2 4]]
```

```
print(y.sum(axis=0))
```

```
[4 6]
```

```
print(y.sum(axis=1))
```

```
[3 7]
```

```
print(y.max())
```

```
4
```

```
print(y.argmin())
```

```
0
```

```
print(y.argmax())
```

```
3
```

```
print(np.all([True,False,False]))
```

```
False
```

```
print(np.any([True,False,False]))
```

```
True
```

```
a=np.zeros((50,50))
print(np.any(a!=0))
```

```
False
```

```
x=np.arange(1,10)
print(np.mean(x))
```

```
5.0
```

```
y=np.array([[1,2,3],[4,5,6]])
print(np.mean(y,axis=0))
print(np.mean(y,axis=1))
```

```
[2.5 3.5 4.5]
[2. 5.]
```

```
print(np.std(x))
```

```
2.581988897471611
```

```
a=np.array([3,4,5])
print(a)
```

```
[3 4 5]
```

```
x=np.arange(2,11).reshape(3,3)
print(x)
```

```
[[ 2  3  4]
 [ 5  6  7]
 [ 8  9 10]]
```

```
a = np.array([[4, 6], [2, 1]])
print("Original array: ")
print(a)
print("Sort along the first axis: ")
x = np.sort(a, axis=0)
print(x)
print("Sort along the last axis: ")
y = np.sort(x, axis=1)
print(y)
```

```
Original array:
[[4 6]
 [2 1]]
Sort along the first axis:
```

```
a= np.array([[10,20,30], [40,50,60]])
fa= np.ravel(a)
print(fa)
```

```
[10 20 30 40 50 60]
```

```
print(np.arange('2017-03', '2017-04', dtype='datetime64[D]'))
```

```
['2017-03-01' '2017-03-02' '2017-03-03' '2017-03-04' '2017-03-05'
 '2017-03-06' '2017-03-07' '2017-03-08' '2017-03-09' '2017-03-10'
 '2017-03-11' '2017-03-12' '2017-03-13' '2017-03-14' '2017-03-15'
 '2017-03-16' '2017-03-17' '2017-03-18' '2017-03-19' '2017-03-20'
 '2017-03-21' '2017-03-22' '2017-03-23' '2017-03-24' '2017-03-25'
 '2017-03-26' '2017-03-27' '2017-03-28' '2017-03-29' '2017-03-30'
 '2017-03-31']
```

```
Start coding or generate with AI.
```

```
Start coding or generate with AI.
```

```
Start coding or generate with AI.
```

```
Start coding or generate with AI.
```

```
Start coding or generate with AI.
```

```
Start coding or generate with AI.
```

```
Start coding or generate with AI.
```

```
Start coding or generate with AI.
```