

```
In [1]: a = [87,34,78,90]
        b = [78,54,32,89]

        for i in a:
            for j in b:
                if i == j:
                    print("common element",i)
            else:
                print ("nc")
```

```
common element 78
nc
```

```
In [2]: type(i)
```

```
Out[2]: int
```

```
In [5]: import numpy as np
```

```
In [6]: arr = np.array([[56,87,45],[56,34,89],[65,23,12]])
```

```
In [7]: arr
```

```
Out[7]: array([[56, 87, 45],
               [56, 34, 89],
               [65, 23, 12]])
```

```
In [8]: #Transpose
```

```
arr.T
```

```
Out[8]: array([[56, 56, 65],
               [87, 34, 23],
               [45, 89, 12]])
```

```
In [12]: #identity matrix
```

```
np.identity(10)
```

```
Out[12]: array([[1., 0., 0., 0., 0., 0., 0., 0., 0., 0.],
                [0., 1., 0., 0., 0., 0., 0., 0., 0., 0.],
                [0., 0., 1., 0., 0., 0., 0., 0., 0., 0.],
                [0., 0., 0., 1., 0., 0., 0., 0., 0., 0.],
                [0., 0., 0., 0., 1., 0., 0., 0., 0., 0.],
                [0., 0., 0., 0., 0., 1., 0., 0., 0., 0.],
                [0., 0., 0., 0., 0., 0., 1., 0., 0., 0.],
                [0., 0., 0., 0., 0., 0., 0., 1., 0., 0.],
                [0., 0., 0., 0., 0., 0., 0., 0., 1., 0.],
                [0., 0., 0., 0., 0., 0., 0., 0., 0., 1.]])
```

```
In [14]: arr
```

```
Out[14]: array([[56, 87, 45],
               [56, 34, 89],
               [65, 23, 12]])
```

```
In [15]: arr.max()
```

Out[15]: 89

```
In [16]: arr.min()
```

Out[16]: 12

```
In [17]: arr.mean()
```

Out[17]: 51.888888888888886

```
In [18]: arr
```

Out[18]:
array([[56, 87, 45],
 [56, 34, 89],
 [65, 23, 12]])

argmaximum/argminimum

```
In [19]: arr
```

Out[19]:
array([[56, 87, 45],
 [56, 34, 89],
 [65, 23, 12]])

```
In [20]: arr.argmax()
```

Out[20]: 5

```
In [21]: arr.argmin()
```

Out[21]: 8

```
In [22]: arr
```

Out[22]:
array([[56, 87, 45],
 [56, 34, 89],
 [65, 23, 12]])

```
In [23]: arr.sort()
```

```
In [24]: arr
```

Out[24]:
array([[45, 56, 87],
 [34, 56, 89],
 [12, 23, 65]])

```
In [25]: arr.argsort()
```

Out[25]:
array([[0, 1, 2],
 [0, 1, 2],
 [0, 1, 2]], dtype=int64)

```
In [ ]:
```