```
import numpy as np

l1 =[1,2,3,4,5]
arr=np.array(l1)
print(arr)

[1 2 3 4 5]

type(arr)

numpy.ndarray

arr.shape

(5,)

arr

array([1, 2, 3, 4, 5])
```

myl1=[1,2,3,4,5] myl2=[6,7,8,9,1] myl3=[9,5,1,2,3] arr=np.array([myl1,myl2,myl3]) arr[:':]

```
myl1=[1,2,3,4,5]
myl2=[6,7,8,9,1]
myl3=[9,5,1,2,3]
arr=np.array([myl1,myl2,myl3])

arr.reshape(5,3)

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

arr[:,:]

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

arr[:,:3]

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

arr[3:,4:]

array([], shape=(0, 1), dtype=int32)

myl1=[1,2,3,4,5]
myl2=[7,8,9,0,1]
myl3=[1,3,4,5,6]
```

```
myl4=[7,7,2,3,4]
arr=np.array([myl1,myl2,myl3,myl4])

arr[:,:]

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

print(arr[2:,1:3])

[[3 4]
 [7 2]]

print(arr[1:,1:])

[[8 9 0 1]
 [3 4 5 6]
 [7 2 3 4]]

print(arr[1:3,:2])

[[7 8]
 [1 3]]

range = np.arange(1,40,3)
print(range)

[ 1  4  7 10 13 16 19 22 25 28 31 34 37]

ls = np.linspace(1,30,10)
print(ls)

[ 1.          4.22222222  7.44444444 10.66666667 13.88888889
17.11111111
 20.33333333 23.55555556 26.77777778 30.        ]

range*3

array([  3,  12,  21,  30,  39,  48,  57,  66,  75,  84,  93, 102,
111])

range%2==0

array([False,  True, False,  True, False,  True, False,  True, False,
        True, False,  True, False])


ls[2:]=23
print(ls)

[ 1.          4.22222222 23.         23.         23.         23.
 23.         23.         23.         23.        ]
```