```
import numpy as np
a=np.array([1,2,3,4,5])
print(a)
```

```
[1 2 3 4 5]
```

```
 import numpy as np
b=np.array([[1,2,3,4],[5,6,7,8]])
print("2 dimensional array:",b)
```

```
2 dimensional array: [[1 2 3 4]
 [5 6 7 8]]
```

```
import numpy as np
c=np.zeros((3,5))
print(c)
```

```
[[0. 0. 0. 0. 0.]
 [0. 0. 0. 0. 0.]
 [0. 0. 0. 0. 0.]]
```

```
d=np.random.random((3,3))
print(d)
```

```
[[0.17538676 0.12661105 0.06337187]
 [0.3273558  0.23232695 0.27828128]
 [0.54867521 0.59296161 0.09347849]]
```

```
import numpy as np
arr=np.array([[1,2,3,4],[5,6,7,8],[1,2,0,1]])
newarr=arr.reshape(4,3)
print(arr)
print(newarr)
```

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

```
import numpy as np
flat=arr.flatten()
print(arr)
print(flat)
```

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

```
print(arr.ndim)
```

```
2
```

```
print(arr.shape)
```

```
(3, 4)
```

```
newtype=arr.astype('f')
print("\n convert array:\n",newtype)
print("\n convert array:\n",newtype.dtype)
```

```

 convert array:
 [[1. 2. 3. 4.]
```

```
      [5. 6. 7. 8.]
      [1. 2. 0. 1.]]

      convert array:
      float32
```

```
size=len(arr)
print("\n sixe of array:\n",size)
```

```
      sixe of array:
      3
```