

In [2]:

```
import numpy as np
even_number = np.arange(2,21,2)
print(even_number)
```

```
[ 2  4  6  8 10 12 14 16 18 20]
```

In [5]:

```
space_number = np.linspace(0,1,5)
print(space_number)
```

```
[0.    0.25 0.5   0.75 1.   ]
```

In [7]:

```
full_array = np.full((3,3),7)
print(full_array)
```

```
[[7 7 7]
 [7 7 7]
 [7 7 7]]
```

In [8]:

```
identity_matrix = np.eye(4)
print(identity_matrix)
```

```
[[1.  0.  0.  0.]
 [0.  1.  0.  0.]
 [0.  0.  1.  0.]
 [0.  0.  0.  1.]]
```

In [9]:

```
random = np.random.rand(10)
print(random)
```

```
[0.71308073 0.1798348  0.42918645 0.79624438 0.40393222 0.32562067
 0.36627542 0.55446999 0.26813386 0.74181372]
```

In [31]:

```
ori_array = np.arange(1,13)
reArray = ori_array.reshape(3,4)
print(reArray)
```

```
[[ 1  2  3  4]
 [ 5  6  7  8]
 [ 9 10 11 12]]
```

In [35]:

```
print(reArray.shape)
print(reArray.ndim)
```

```
(3, 4)
2
```

In [32]:

```
original_array = np.arange(1,26)
reshape_array = original_array.reshape(5,5)
print(reshape_array)
```

```
[[ 1  2  3  4  5]
 [ 6  7  8  9 10]
 [11 12 13 14 15]
 [16 17 18 19 20]
 [21 22 23 24 25]]
```

In [24]:

```
first_row = reshape_array[0,:]
print(first_row)
```

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

In [28]:

```
last_column = reshape_array[:, -1]
print(last_column)
```

```
[ 5 10 15 20 25]
```

In [29]:

```
reshape_array[reshape_array > 15] = 0
print(reshape_array)
```

```
[[ 1  2  3  4  5]
 [ 6  7  8  9 10]
 [11 12 13 14 15]
 [ 0  0  0  0  0]
 [ 0  0  0  0  0]]
```

In []: