

```
In [3]: import numpy as np
```

```
In [4]: numbers = [1,2,3,4,5]

        array = np.array(numbers)
        array
```

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

```
In [5]: type(array)
```

```
Out[5]: numpy.ndarray
```

```
In [ ]:
```

```
In [9]: array_of_zeros = np.zeros((3, 4))
        array_of_zeros
```

```
Out[9]: array([[0., 0., 0., 0.],
               [0., 0., 0., 0.],
               [0., 0., 0., 0.]])
```

```
In [10]: array_of_ones = np.ones((4,4))
         array_of_ones
```

```
Out[10]: array([[1., 1., 1., 1.],
                [1., 1., 1., 1.],
                [1., 1., 1., 1.],
                [1., 1., 1., 1.]])
```

```
In [ ]:
```

```
In [22]: z = np.arange(12).reshape(2,3,2)
        z
```

```
Out[22]: array([[[ 0,  1],
                 [ 2,  3],
                 [ 4,  5]],

                [[ 6,  7],
                 [ 8,  9],
                 [10, 11]]])
```

```
In [24]: z = np.arange(12)
z
```

```
Out[24]: array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11])
```

```
In [27]: z = np.arange(28).reshape(2,7,2)
z
```

```
Out[27]: array([[[ 0,  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],
                 [26, 27]]])
```

```
In [28]: z = np.arange(90).reshape(30,3)
z
```

```
Out[28]: array([[ 0,  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, 26],  
[27, 28, 29],  
[30, 31, 32],  
[33, 34, 35],  
[36, 37, 38],  
[39, 40, 41],  
[42, 43, 44],  
[45, 46, 47],  
[48, 49, 50],  
[51, 52, 53],  
[54, 55, 56],  
[57, 58, 59],  
[60, 61, 62],  
[63, 64, 65],  
[66, 67, 68],  
[69, 70, 71],  
[72, 73, 74],  
[75, 76, 77],  
[78, 79, 80],  
[81, 82, 83],  
[84, 85, 86],  
[87, 88, 89]])
```

In [29]: `z.shape`

Out[29]: (30, 3)

In []: