

Dimension	Array Creation  print(a)	Check Dimension  print(a.ndim)	Check Shape  print(a.shape)  (layer X Row X Col)	Check Size  print(a.size)
0D	a = np.array(42)  42	0	()	1
1D	a = np.array([42]) OR a = np.array((42,))  [42]	1	(1,)	1
1D	a = np.array([1, 2, 3, 4, 5]) OR a = np.array((1, 2, 3, 4, 5))  [1 2 3 4 5]	1	(5,)	5
2D	a = np.array(((1, 2, 3), (4, 5, 6))) OR a = np.array([[1, 2, 3], [4, 5, 6]])  [[1 2 3] [4 5 6]]	2	(2,3)	6
3D	a = np.array((((1, 2, 3), (4, 5, 6)), ((1, 2, 3), (4, 5, 6)))) OR a = np.array([[[1, 2, 3], [4, 5, 6]], [[1, 2, 3], [4, 5, 6]]])  [[[1 2 3] [4 5 6]]  [[1 2 3] [4 5 6]]]	3	(2, 2, 3)	12

3D	<pre>a = np.array((((1, 2, 3), (4, 5, 6)), ((1, 2, 3), (4, 5, 6)),((1, 2, 3), (4, 5, 6))))</pre> <p>OR</p> <pre>a = np.array([[[1, 2, 3], [4, 5, 6]], [[1, 2, 3], [4, 5, 6]],[[1, 2, 3], [4, 5, 6]]])</pre> <pre>[[[1 2 3]   [4 5 6]]  [1 2 3]  [4 5 6]]  [1 2 3]  [4 5 6]]]</pre>	3	(3, 2, 3)	18
3D	<pre>a = np.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))))</pre> <p>OR</p> <pre>a = np.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]]])</pre>	3	(3, 3, 3)	27

	<pre> [[[ 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]]]</pre>			
4D	<pre> a = np.array([1, 2, 3, 4], ndmin=4)  [[[[[1 2 3 4]]]]]</pre>	4	(1, 1, 1, 4)	4
4D	<pre> a = np.array([[[1, 2, 3], [4, 5, 6]]], ndmin=4)  [[[[[1 2 3]  [4 5 6]]]]]</pre>	4	(1, 1, 2, 3)	6
4D	<pre> a = np.array([[[1, 2, 3], [4, 5, 6]], [[1, 2, 3], [4, 5, 6]], [[1, 2, 3], [4, 5, 6]]], ndmin=4)  [[[[[1 2 3]  [4 5 6]]   [[1 2 3]  [4 5 6]]   [[1 2 3]  [4 5 6]]]]]</pre>	4	(1, 3, 2, 3)	18

5D	<pre>a = np.array([[[[1, 2, 3], [4, 5, 6]]],ndmin=5)</pre> <pre>[[[[[1 2 3]       [4 5 6]]]]]</pre>	5	(1, 1, 1, 2, 3)	6
10D	<pre>a = np.array([1, 2, 3, 4], ndmin=10)</pre> <pre>[[[[[[[[[[[1 2 3 4]]]]]]]]]]]</pre>	10	(1, 1, 1, 1, 1, 1, 1, 1, 1, 4)	4