

```
pip install numpy
```

Looking in indexes: <https://pypi.org/simple>, <https://us-python.pkg.dev/colab-wheels/public/simple/>
Requirement already satisfied: numpy in /usr/local/lib/python3.10/dist-packages (1.22.4)

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

```
import numpy as np

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

```
a.ndim
1

a.shape
(5,)

a.size
5
```

Automatic saving failed. This file was updated remotely or in another tab. [Show diff](#)

```
5

a1=np.zeros(6)
a1
array([0., 0., 0., 0., 0., 0.])
```

```
#create an array of one
a2=np.ones(6)
a2
array([1., 1., 1., 1., 1., 1.])
```

```
a3=np.arange(10,30,5)
a3
array([10, 15, 20, 25])
```

```
a4 = np.linspace(0,10,5)
a4
array([ 0. ,  2.5,  5. ,  7.5, 10. ])
```

▼ subtraction

```
a=np.array([1,2,3])
b=np.array([4,5,6])
a+b
array([5, 7, 9])
```

▼ multiplication

```
a*b
array([ 4, 10, 18])
```

▼ division

```
a/b
array([0.25, 0.4 , 0.5 ])
```

```
np.exp(b)
array([ 54.59815003, 148.4131591 , 403.42879349])
```

```
np.sqrt(a)
array([1.          , 1.41421356, 1.73205081])
```

▼ comparison

```
np.sin(a)
array([0.84147098, 0.90929743, 0.14112001])
```

```
a==b
```

Automatic saving failed. This file was updated remotely or in another tab. [Show diff](#)

```
a > 2
array([False, False,  True])
```

▼ aggregate function

```
a.min()
1
```

```
a.sum()
6
```

```
a.max()
3
```

```
a.cumsum()
array([1, 3, 6])
```

```
a.mean()
2.0
```

```
## correction coefficient
np.corrcoef(a,b)
array([[1., 1.],
       [1., 1.]])
```

```
np.std(a)
```

0.816496580927726

[Colab paid products](#) - [Cancel contracts here](#)

✓ 0s completed at 11:16 AM



Automatic saving failed. This file was updated remotely or in another tab. [Show diff](#)