```
import numpy as np
a= np.array([1,2,3])
b= np.array([4,5,6])
print(a+b)
```

```
[5 7 9]
```

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

```
15
```

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

```
3.0
1.4142135623730951
```

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

```
3.0
1.4142135623730951
```

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

```
[[19 22]
 [43 50]]
```

Double-click (or enter) to edit

```
import numpy as np
random_matrix = np.random.rand(3, 3)
print(random_matrix)
```

```
[[0.1055696  0.62249391 0.36695177]
 [0.08743869 0.51265436 0.23973628]
 [0.55980145 0.80821322 0.43349869]]
```

```
import numpy as np
identity_matrix=np.eye(3)
print(identity_matrix)
```

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

```
import numpy as np
a=np.array([1,2,3])
b=np.array([[4,5,6]])
print(a*b)
```

```
[[ 4 10 18]]
```

```
import numpy as np
a=np.array([1,2,3])
b=np.array([[4,5,6],[7,8,9]])
print(a+b)
```

```
[[ 5  7  9]
 [ 8 10 12]]
```

```
import numpy as np
zeros_matrix=np.zeros((3,3))
updated_matrix=zeros_matrix+5
print(updated_matrix)
```

```
[[5. 5. 5.]
 [5. 5. 5.]
 [5. 5. 5.]]
```

```
import numpy as np
array=np.array([1,2,3,4,5,6])
split_array=np.split(array,3)
print(split_array)
```

```
[array([1, 2]), array([3, 4]), array([5, 6])]
```

```
import numpy as np
array=np.array([1,2,3,4,5,6])
filtered_array =array
print(filtered_array)
```

```
[1 2 3 4 5 6]
```

```
import numpy as np
a=np.array([1,2,3])
b=np.array([4,5,6])
dot_product = np.dot(a,b)
print(dot_product)
```

```
32
```

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

```
[ 1  3  6 10 15]
```

```
import numpy as np
random_int_matrix=np.random.randint(1,100,(4,4))
print(random_int_matrix)
```

```
[[69 35 50 50]
 [65 62 80  4]
 [56 94  2 70]
 [18  2 51 57]]
```

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

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