

```
In [11]: import numpy as np
a = np.zeros((3,3), dtype = int)
print(a)
```

```
[[0 0 0]
 [0 0 0]
 [0 0 0]]
```

```
In [12]: import numpy as np
a = np.ones(3, dtype = int)
print(a)
```

```
[1 1 1]
```

```
In [23]: import numpy as np
a = np.array([1,2,3,4])
b = len(a)
for i in range(b):
    print(a[i])
```

```
1
2
3
4
```

```
In [34]: import numpy as np
a = np.zeros(4)
b = len(a)
for i in range(b):
    c = int(input("enter value:"))
    a[i] = c
print(a)
```

```
enter value:1
enter value:2
enter value:3
enter value:4
[1. 2. 3. 4.]
```

```
In [46]: import numpy as np
a = np.array([1,2,1,3,4,2,1,2])
count = collections.Counter(a)
print(count)
```

```
Counter({1: 3, 2: 3, 3: 1, 4: 1})
```

```
In [48]: import numpy as np
a = np.array([1,2,3,4,2,1,2,1,2,1,2])
print(np.count_nonzero(a==2))
```

```
5
```

```
In [57]: import numpy as np
a = np.array([1,2,3,4,2,1,2,1,2,1,2])
print(np.count_nonzero(a<4))
```

```
10
```

```
In [55]: import numpy as np
a=np.array([1,2,3,4,2,1,2,1,2,1,2])
print(max(a))
```

4

```
In [54]: import numpy as np
a=np.array([1,2,3,4,2,1,2,1,2,1,2])
print(min(a))
```

1

```
In [52]: import numpy as np
a=np.array([1,2,3,4,2,1,2,1,2,1,2])
print(2 in a)
```

True

```
In [53]: import numpy as np
a=np.array([1,2,3,4,2,1,2,1,2,1,2])
print(7 in a)
```

False

```
In [58]: import numpy as np
a=np.array([1,2,1,3,4,2,1,2])
count = collections.Counter(a<4)
print(count)
```

Counter({True: 7, False: 1})

In []: