

In [1]:

```
import numpy as np
a = np.zeros(3, dtype = int)
print(a)
```

[0 0 0]

In [3]:

```
import numpy as np
c = np.zeros([3, 3], dtype=int)
print("\nMatrix c : \n", c)
```

Matrix c :  
[[0 0 0]  
[0 0 0]  
[0 0 0]]

In [4]:

```
import numpy as np
a = np.ones(3, dtype = int)
print(a)
```

[1 1 1]

In [9]:

```
arr = np.array([1, 2, 3])

for x in arr:
    print(x)
```

1  
2  
3

In [36]:

```
arr = np.zeros(9)
arr = np.array([1, 2, 3])
for x in arr:
    print(x)
print(arr)
```

1  
2  
3  
[1 2 3]

In [18]:

```
x = np.array([2, 2, 2, 4, 5, 5, 5, 7, 8, 8, 10, 12])
np.count_nonzero(x)
```

Out[18]:

12

In [19]:

```
import collections
x = np.array([1,2,3,4,5,1,2,1,9,1])
print("Original array:")
counter = collections.Counter(x)
print(counter)
```

Original array:  
Counter({1: 4, 2: 2, 3: 1, 4: 1, 5: 1, 9: 1})

In [38]:

```
x = np.array([2, 2, 2, 4, 5, 5, 5, 7, 8, 8, 10, 12])
np.count_nonzero(x==2)
```

Out[38]:

3

In [37]:

```
import collections as coll
x = np.array([2, 2, 2, 4, 5, 5, 5, 7, 8, 8, 10, 12])
dic=coll.Counter(x)
print(dic)
print([a for a,b in dic.items() if b<4])
```

```
Counter({2: 3, 5: 3, 8: 2, 4: 1, 7: 1, 10: 1, 12: 1})
[2, 4, 5, 7, 8, 10, 12]
```

In [40]:

```
import numpy as np
n_array = np.array([2, 3, 0])
print(n_array)
print(2 in n_array)
```

```
[2 3 0]
True
```

In [41]:

```
import numpy
arr = numpy.array([1, 5, 4, 8, 3, 7])
max_element = numpy.max(arr)
min_element = numpy.min(arr)
print(max_element)
print(min_element)
```

```
8
1
```

In [ ]: