In [1]:
```
import numpy as np
a=np.zeros((3,3),dtype=int)
print(a)
```

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

In [2]:
```
b=np.ones((3,3),dtype=int)
print(b)
```

```
[[1 1 1]
 [1 1 1]
 [1 1 1]]
```

In [3]:
```
c=np.array([1,2,3,4,5])
for i in c:
    print(i)
```

```
1
2
3
4
5
```

In [4]:
```
g=int(input("enter the size:"))
n=np.zeros(g,dtype=int)
for i in range(g):
    h=int(input("enter value:"))
    n[i]=h
print(n)
```

```
enter the size:3
enter value:1
enter value:2
enter value:3
[1 2 3]
```

In [5]:
```
import collections as c1
```

In [6]:
```
x=np.array([1,2,3,4,5,6,7,8])
y=c1.Counter(x)
print(y)
```

```
Counter({1: 1, 2: 1, 3: 1, 4: 1, 5: 1, 6: 1, 7: 1, 8: 1})
```

In [7]:
```
dic={}
for i in x:
    if i not in dic:
        dic[i]=1
    else:
        dic[i]+=1
print(dic)
```

```
{1: 1, 2: 1, 3: 1, 4: 1, 5: 1, 6: 1, 7: 1, 8: 1}
```

In [8]:
```
#a1=int(input())
b1=np.count_nonzero(x==2)
print(b1)
```

```
1
```

In [9]:
```
b2=np.count_nonzero(x<4)
print(b2)
```

```
3
```

In [10]:
```
print(min(x))
```

```
1
```

In [11]:
```
print(max(x))
```

```
8
```

In [12]:
```
x1=np.array([1,2,3,4,5,6])
for i in range(4):
    n1=int(input("enter value"))
    h1=n1 in x1
    print(h1)
```

```
enter value1
True
enter value2
True
enter value3
True
enter value10
False
```

In [16]:
```
y1=np.array([1,2,3,4,5,6,7,8,9,1,1,1,1,2,2,2,3,3,3,4,4,4,5,5,5])
y2=c1.Counter(y1)
print(y2)
print([a for a,b in y2.items() if b<4])
```

```
Counter({1: 5, 2: 4, 3: 4, 4: 4, 5: 4, 6: 1, 7: 1, 8: 1, 9: 1})
[6, 7, 8, 9]
```

In [ ]: