

Excerci 1

Crea un np.array d'una dimensió, que inclogui l'almenys 8 nombres sencers, data type int64. Mostra la dimensió i la forma de la matriu.

```
In [1]: import numpy as np
```

executed in 1.10s, finished 11:10:08 2022-04-04

```
In [2]: x = np.array([17,9,14,81,29,8,14,23,4,6,1,2011], dtype="int64")
```

executed in 7ms, finished 11:10:09 2022-04-04

```
In [3]: x.dtype
```

executed in 19ms, finished 11:10:11 2022-04-04

```
Out[3]: dtype('int64')
```

Excerci 2

De la matriu de l'exercici 1, calcula el valor mitjà dels valors introduïts i resta la mitjana resultant de cada un dels valors de la matriu.

```
In [6]: np.median(x)
```

executed in 6ms, finished 11:10:36 2022-04-04

```
Out[6]: 14.0
```

```
In [7]: x - np.median(x)
```

executed in 8ms, finished 11:10:37 2022-04-04

```
Out[7]: array([  3.,  -5.,   0.,  67.,  15.,  -6.,   0.,   9.,  -1
  0.,
          -8., -13., 1997.] )
```

Excerci 3

Crea una matriu bidimensional amb una forma de 5 x 5. Extreu el valor màxim de la matriu, i els valors màxims de cadascun dels seus eixos.

```
In [8]: y = np.array([[3,8,45,6,3], [8,33,844,7,101]])  
  
print(y)
```

executed in 8ms, finished 11:10:39 2022-04-04

```
[[ 3  8 45  6  3]  
 [ 8 33 844 7 101]]
```

```
In [9]: np.max(y)
```

executed in 6ms, finished 11:10:41 2022-04-04

```
Out[9]: 844
```

```
In [10]: np.min(y)
```

executed in 6ms, finished 11:10:43 2022-04-04

```
Out[10]: 3
```

```
In [11]: np.max(y, axis=0)
```

executed in 5ms, finished 11:10:45 2022-04-04

```
Out[11]: array([ 8, 33, 844,  7, 101])
```

```
In [12]: np.max(y, axis=1)
```

executed in 6ms, finished 11:10:48 2022-04-04

```
Out[12]: array([ 45, 844])
```

```
In [ ]:
```