

```
a=10
b=a*4
print (b)
```

```
40
```

```
datas = [{'Name':'jojo','Age':20,'Score':30},
          {'Name':'momaskkkkkkk','Age':20,'Score':10},
          {'Name':'นักบอล','Age':20,'Score':100},
          {'Name':'นักเด็ก','Age':20,'Score':80}
        ]
type(datas)
```

```
list
```

```
for k in datas:
    print (k ['Name'],k ['Score'])
```

```
jojo 30
momaskkkkkkk 10
นักบอล 100
นักเด็ก 80
```

```
import numpy as np
data = [2,1,3,4,5,6,3,20]
np.mean(data)
```

```
5.5
```

```
# np.std(data)
# np.max(data)
np.min(data)
```

```
1
```

```
x= [[6,7,4,5,1],
     [2,8,3,6,4],
     [1,3,2,9,6],
     [8,9,1,7,2]
    ]
```

```
npx = np.array(x)
type(npx)
```

```
numpy.ndarray
```

```
npx.shape
```

```
(4, 5)
```

```
npx[1,2]
```

```
3
```

```
# npx[:,:]
npx[0]
```

```
array([6, 7, 4, 5, 1])
```

```
npx>5
```

```
array([[ True,  True, False, False, False],
       [False,  True, False,  True, False],
       [False, False, False,  True,  True],
       [ True,  True, False,  True, False]])
```

```

npx.reshape(1,-1)

array([[6, 7, 4, 5, 1, 2, 8, 3, 6, 4, 1, 3, 2, 9, 6, 8, 9, 1, 7, 2]])

mu, sigma = 3.2, 0.5
s = np.random.normal(mu,sigma, 100)
s[:10]

```

```

array([3.50151119, 3.9029178 , 3.97169675, 2.8454208 , 3.04960392,
       3.32478466, 4.10051325, 3.37343208, 3.05606829, 2.42957893])

```

```

np.mean(s)

3.200318511737403

```

```

np.std(s)

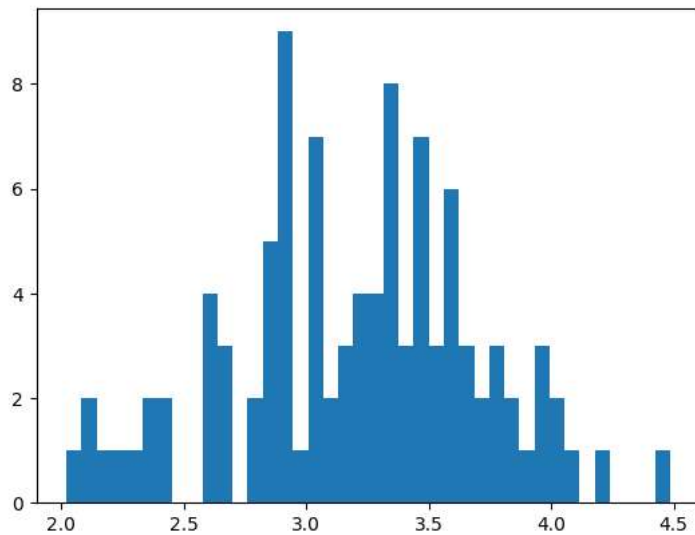
0.5041249787260681

```

```

import matplotlib.pyplot as plt
plt.hist(s,bins = 40)
plt.show()

```



```

x = [5,7,8,7,2,17,2,9,4,11,12,9,6]
y = [99,86,87,88,111,86,103,87,94,78,77,85,86]

```

```

plt.scatter(x,y)
plt.show()

```



