

```
import numpy as np
x=np.array([
    [40,45],
    [42,43],
    [38,40],
    [75,78],
    [80,82],
    [78,76],
    [90,92],
    [88,89],
    [92,94]
])
from sklearn.cluster import KMeans
KMeans=KMeans(n_clusters=4, random_state=0)
KMeans.fit(x)
labels=KMeans.labels_
print(labels)

[1 1 1 3 0 3 2 2 2]

import matplotlib.pyplot as plt
plt.scatter(x[:,0],x[:,1],c=labels)
plt.scatter(
    KMeans.cluster_centers_[:,0],
    KMeans.cluster_centers_[:,1],
    marker='x',
    s=200
)
plt.xlabel("Maths Marks")
plt.ylabel("Science Marks")
plt.title("K-Meanz Clustering (k=3)")
plt.show()
```

K-Means Clustering (k=3)

