```python
import matplotlib.pyplot as plt
import numpy as np
data = np.array([1,1,2,2,3,3,4,4,6,7,8,10,11,14,15,20,23])
fig = plt.figure(figsize=(10,7))
plt.boxplot(data)
plt.show()
```
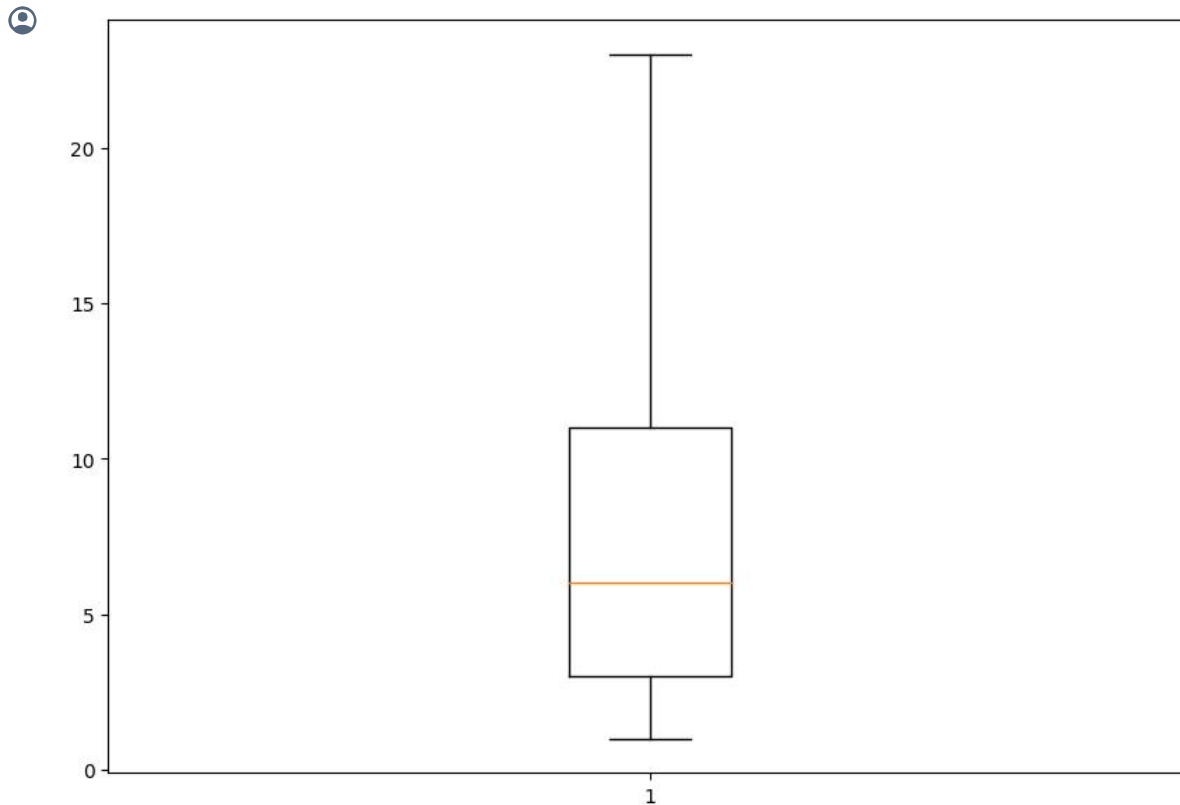


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fig = plt.figure(figsize=(10,7))
plt.boxplot(data, vert=0)
plt.show()
```
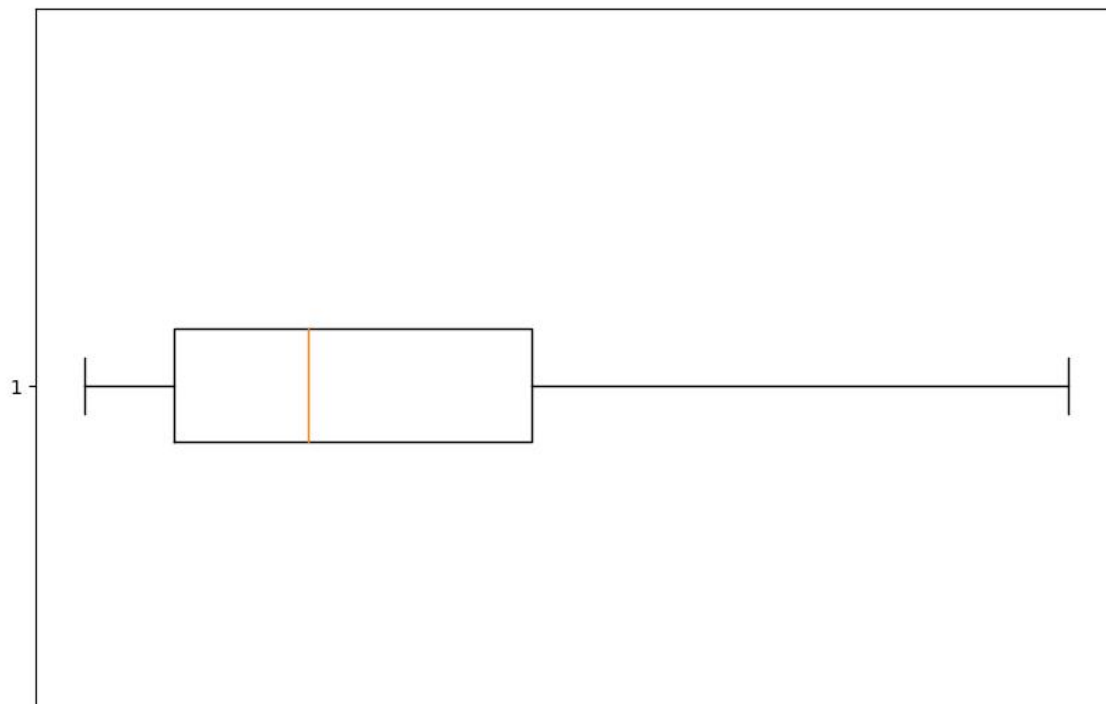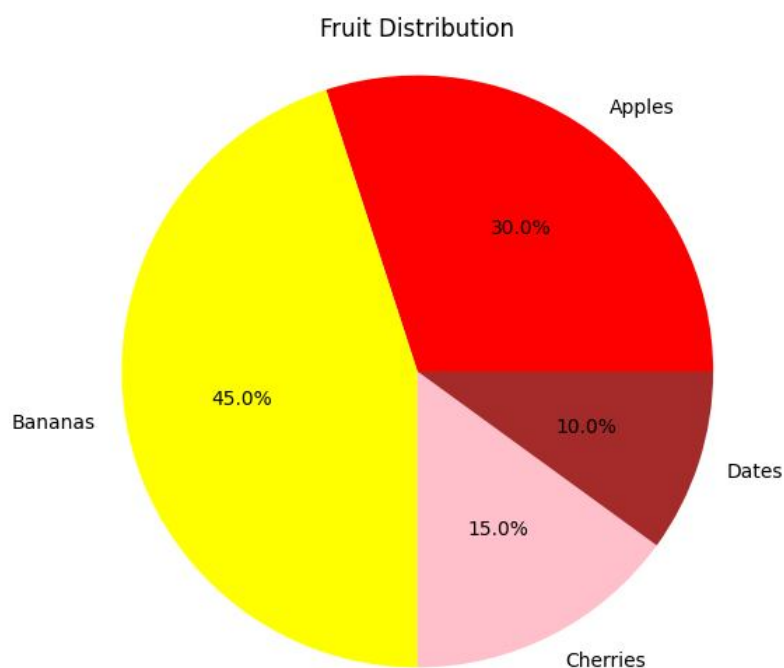
```python
import matplotlib.pyplot as plt
labels = ['Apples', 'Bananas', 'Cherries', 'Dates']
sizes = [30, 45, 15, 10]
colors = ['red', 'yellow', 'pink', 'brown']
plt.figure(figsize=(6, 6))
plt.pie(sizes, labels=labels, colors=colors, autopct='%1.1f%%')
plt.axis('equal')
plt.title("Fruit Distribution")
plt.show()
```



```python
l1=[22,21,25,100,50]
l2=["A","B","C","D","E"]
e=[0.5,0,0.5,0,0]
plt.pie(l1,labels=l2,explode=e)
```

```
([<matplotlib.patches.Wedge at 0x79075cee4be0>,
  <matplotlib.patches.Wedge at 0x79075cee64a0>,
  <matplotlib.patches.Wedge at 0x79075cee4a60>,
  <matplotlib.patches.Wedge at 0x79075cee6620>,
  <matplotlib.patches.Wedge at 0x79075cee7d60>],
 [Text(1.5202590759028378, 0.4988109282434076, 'A'),
  Text(0.6516828526984948, 0.8861768782239537, 'B'),
  Text(-0.04610872577628902, 1.5993354824449084, 'C'),
  Text(-1.0631991580002986, -0.28214810016630665, 'D'),
  Text(0.8265880809555308, -0.7257769246967368, 'E')])
```
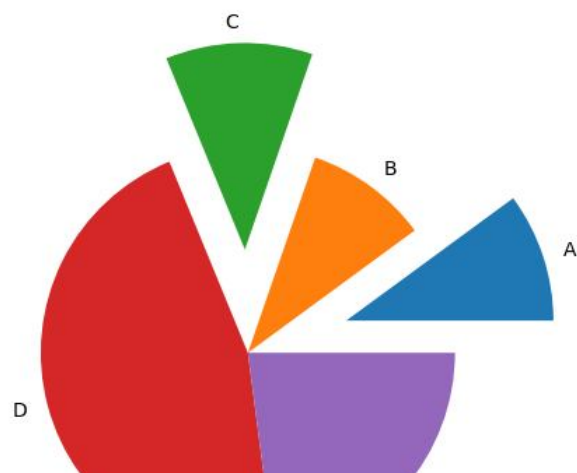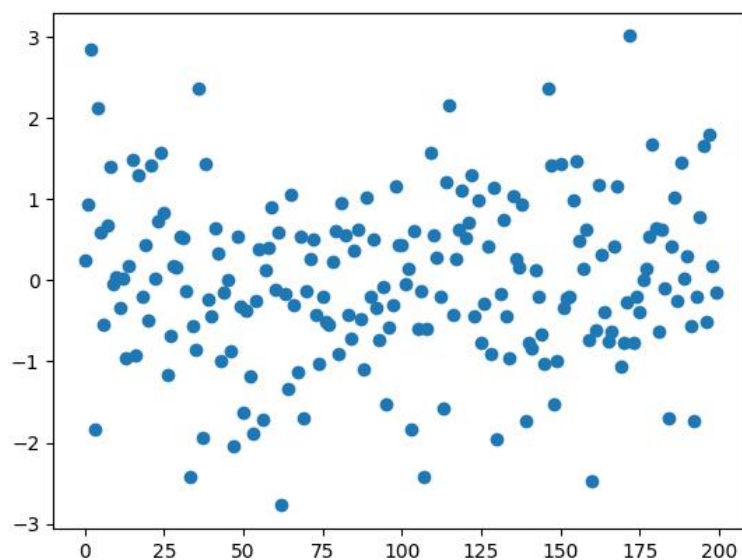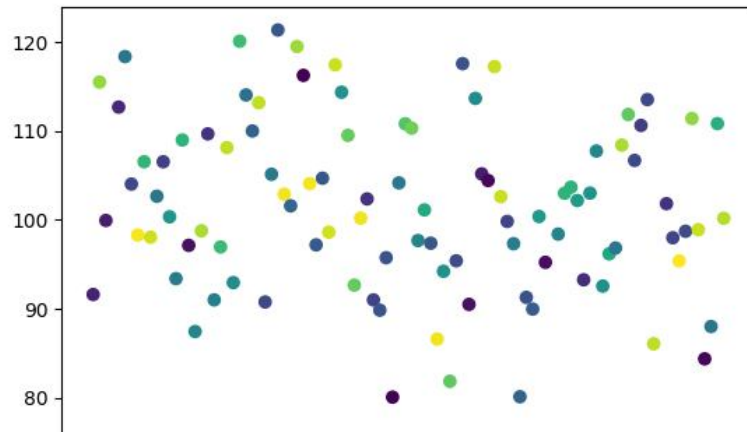


```
plt.scatter(np.arange(200), np.random.standard_normal(200))
```

<matplotlib.collections.PathCollection at 0x7907594126e0>
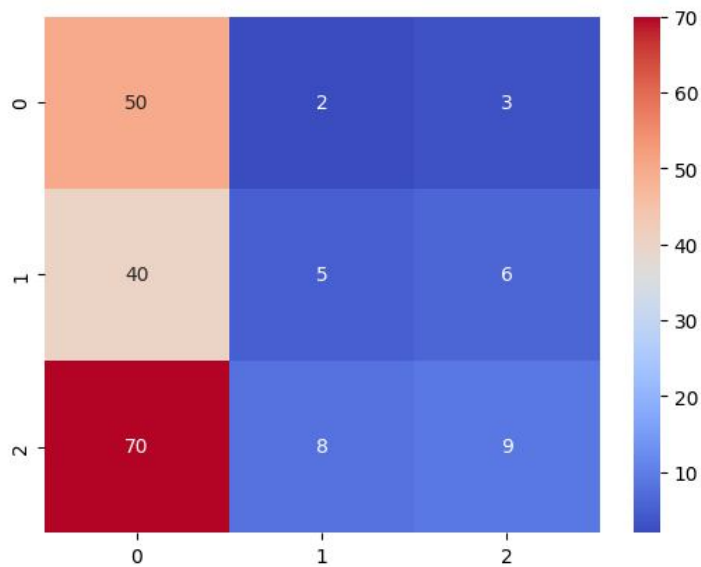


```
x=np.arange(100)
y=np.random.normal(100,10,100)
colors = np.random.rand(100)
plt.scatter(x,y,c=colors)
```

<matplotlib.collections.PathCollection at 0x7907594a5f30>



```
import seaborn as sns
import matplotlib.pyplot as plt
data = [
    [50, 2, 3],
    [40, 5, 6],
    [70, 8, 9]
]
sns.heatmap(data, annot=True, cmap='coolwarm')
plt.show()
```



```
plt.hist(np.random.normal(50,5,100),bins=20,color="Orange")
```

```
(array([ 2.,  1.,  0.,  8.,  3.,  3.,  8.,  6., 15., 12.,  9.,  9.,  6.,
         4.,  5.,  2.,  1.,  3.,  0.,  3.]),
 array([37.79941407, 39.0522325 , 40.30505093, 41.55786935, 42.81068778,
        44.06350621, 45.31632464, 46.56914307, 47.8219615 , 49.07477993,
        50.32759836, 51.58041679, 52.83323522, 54.08605365, 55.33887208,
        56.59169051, 57.84450893, 59.09732736, 60.35014579, 61.60296422,
        62.85578265]),
 <BarContainer object of 20 artists>)
```