In [1]:
```
import numpy as np
array=np.random.randint(1,100,16)
array
```

Out[1]:
```
array([47, 51, 74, 85, 65, 96, 77, 21, 85, 72, 80, 50, 51, 74, 99, 17])
```

In [2]:
```
array.mean()
```

Out[2]:
```
65.25
```

In [3]:
```
np.percentile(array,25)
```

Out[3]:
```
50.75
```

In [4]:
```
np.percentile(array,50)
```

Out[4]:
```
73.0
```

In [5]:
```
np.percentile(array,75)
```

Out[5]:
```
81.25
```

In [6]:
```
np.percentile(array,100)
```

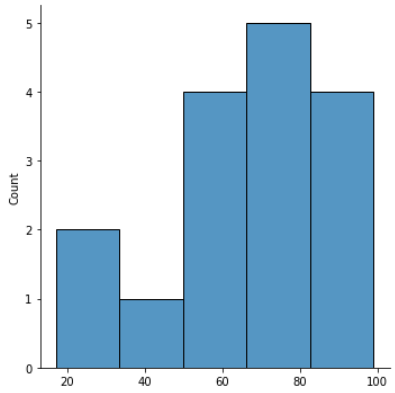
Out[6]:
```
99.0
```

In [8]:
```
def outDetection(array):
    sorted(array)
    Q1,Q3=np.percentile(array,[25,75])
    IQR=Q3-Q1
    lr=Q1-(1.5*IQR)
    ur=Q3+(1.5*IQR)
    return lr,ur
lr,ur=outDetection(array)
lr,ur
```

Out[8]:
```
(5.0, 127.0)
```

In [9]:
```
import seaborn as sns
%matplotlib inline
sns.displot(array)
```

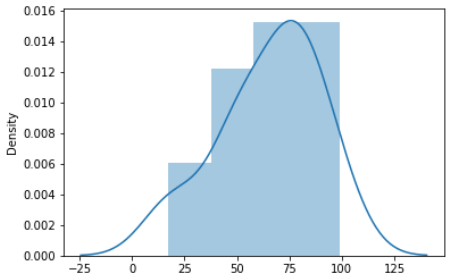
Out[9]:
```
<seaborn.axisgrid.FacetGrid at 0x233f706efa0>
```



In [10]:
```
sns.distplot(array)
```

```
C:\Users\HDC0422193\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated functi
on and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with simila
r flexibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```

Out[10]: <AxesSubplot:ylabel='Density'>

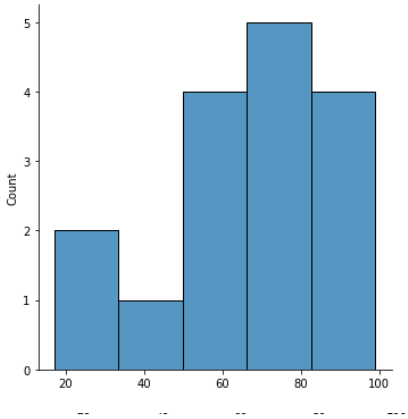


In [11]:
```
new_array=array[(array>lr) & (array<ur)]
new_array
```

Out[11]: array([47, 51, 74, 85, 65, 96, 77, 21, 85, 72, 80, 50, 51, 74, 99, 17])

In [12]:
```
sns.displot(new_array)
```

Out[12]: <seaborn.axisgrid.FacetGrid at 0x233f7de6100>



In [13]:
```
lr1,ur1=outDetection(new_array)
lr1,ur1
```

Out[13]: (5.0, 127.0)

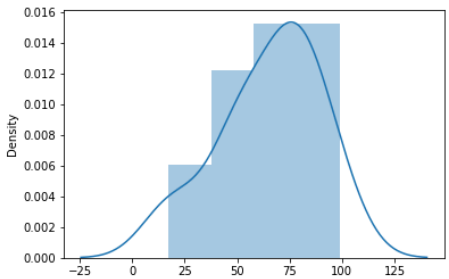
In [14]:
```
final_array=new_array[(new_array>lr1) & (new_array<ur1)]
final_array
```

Out[14]: array([47, 51, 74, 85, 65, 96, 77, 21, 85, 72, 80, 50, 51, 74, 99, 17])

In [15]:
```
sns.distplot(final_array)
```

```
C:\Users\HDC0422193\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated functi
on and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with simila
r flexibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```

Out[15]: <AxesSubplot:ylabel='Density'>



In [ ]: