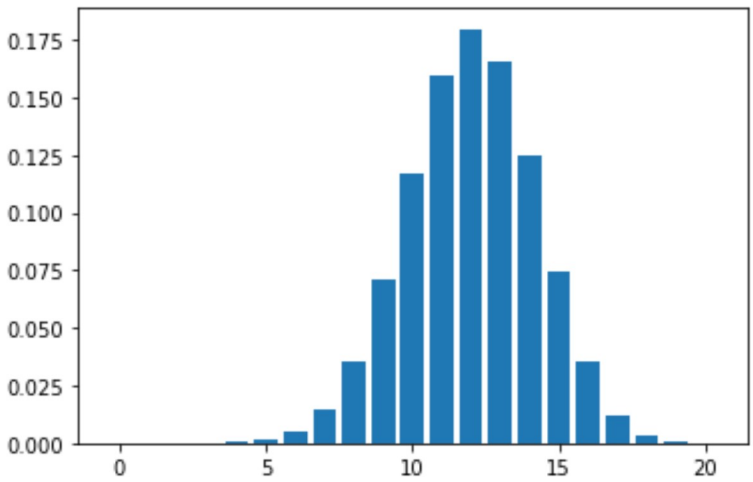
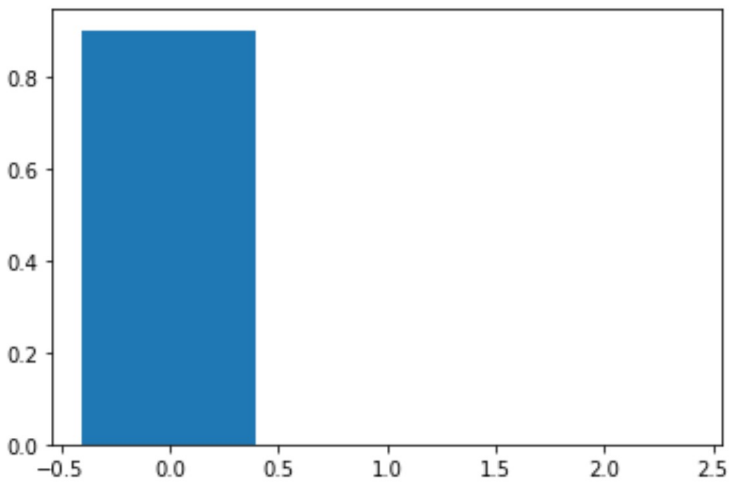
In [1]:
```
from scipy.stats import binom
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

1. Perform Binomial, Bernoulli distributions

In [18]:
```
a = 20
b = 0.6
c_values = list(range(n+1))
dist=[binom.pmf(c,a,b) for c in c_values]
plt.bar(c_values,dist)
plt.show()
```



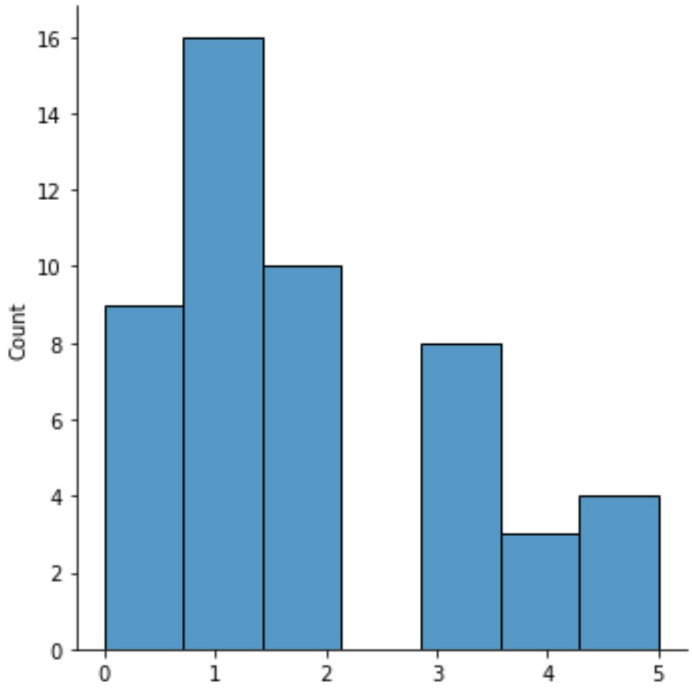
In [19]:
```
from scipy.stats import bernoulli
bd=bernoulli(0.1)
a = [0,2]
plt.bar(a,bd.pmf(a))
plt.show()
```



2. Perform Poisson distribution

In [13]:

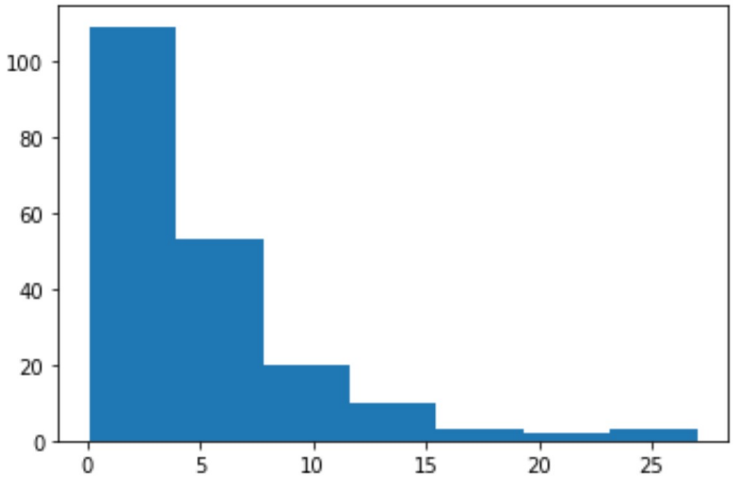
```
from numpy import random
import matplotlib.pyplot as plt
import seaborn as sns
sns.displot(random.poisson(lam = 2,size = 50))
plt.show()
```



3. Perform Normal, Exponential distributions

In [20]:

```
from numpy import random
import matplotlib.pyplot as plt
y = np.random.exponential(5,200)
count,bins,ignored = plt.hist(y,7)
plt.show()
```



In [21]:

```
import matplotlib.pyplot as plt
mu,sigma = 0.22,0.1
q= np.random.normal (mu,sigma,200)
count,bins,ignored=plt.hist(q,20)
plt.plot(bins,1/sigma*np.sqrt(2*np.pi)*np.exp(-(bins-mu)**2/(2*sigma**2)))
plt.show()
```