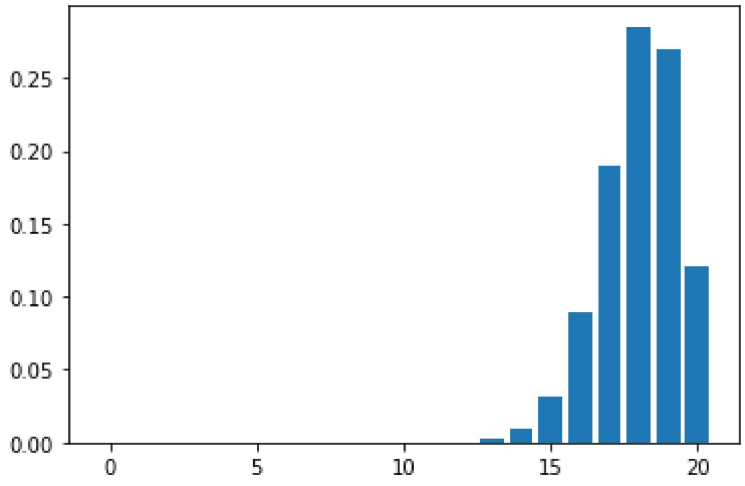
PROBLEM STATEMENT:

1. Perform Binomial, Bernoulli distributions
2. Perform Poisson distribution
3. Perform Normal, Exponential distributions

In [2]:
```
from scipy.stats import binom
import matplotlib.pyplot as plt
```

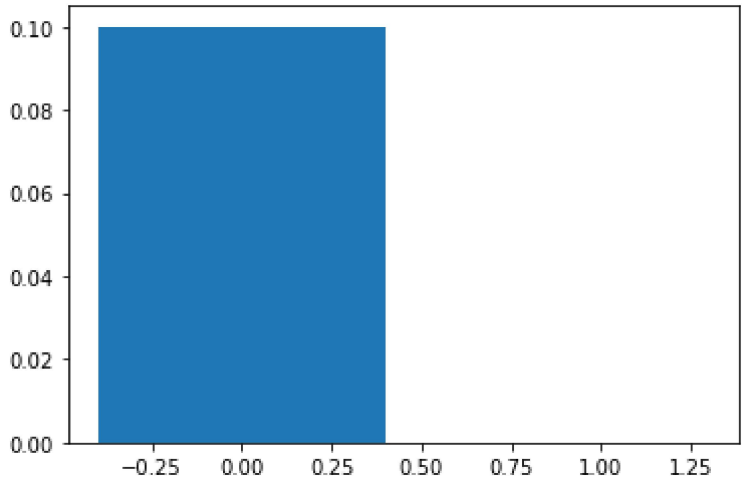
Binomial

In [3]:
```
n =20
p=0.9
r_value= list(range(n+1))
dist= [binom.pmf(r,n,p) for r in r_value]
plt.bar(r_value,dist)
plt.show()
```



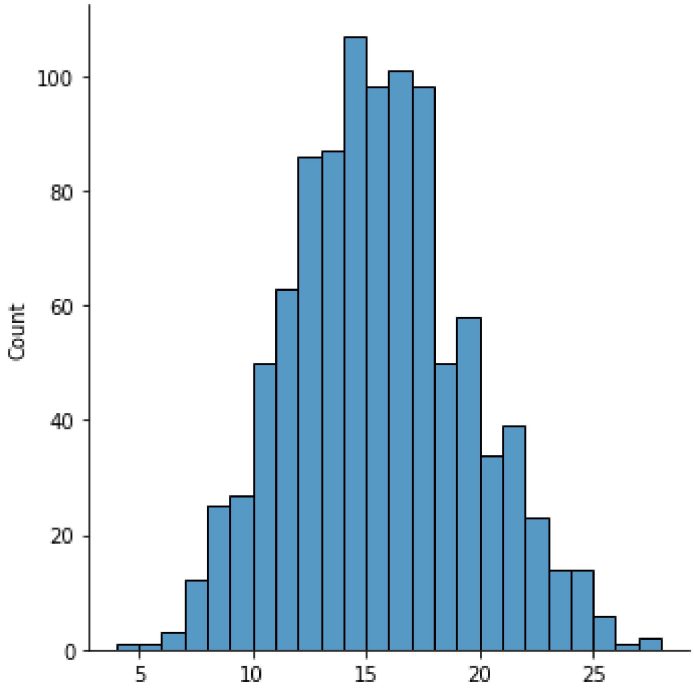
Bernoulli

In [7]:
```
from scipy.stats import bernoulli
bb=bernoulli(0.9)
x=[0,0.9]
plt.bar(x,bb.pmf(x))
plt.show()
```



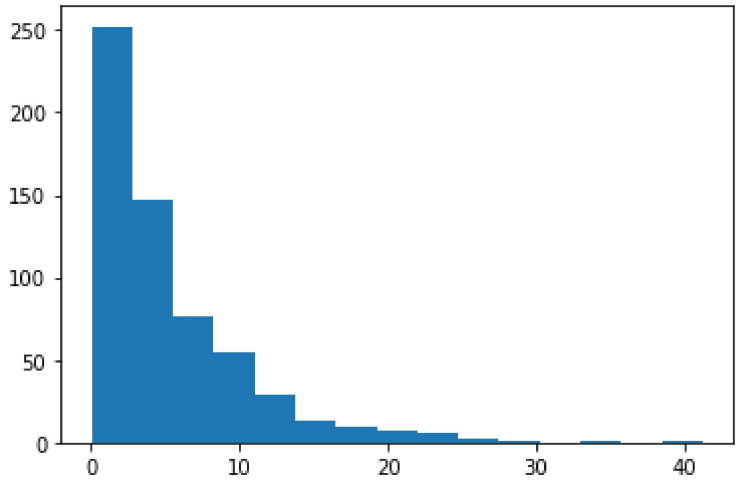
Poisson

In [8]:
```
from numpy import random
import matplotlib.pyplot as plt
import seaborn as sns
sns.displot(random.poisson(lam=15,size=1000))
plt.show()
```



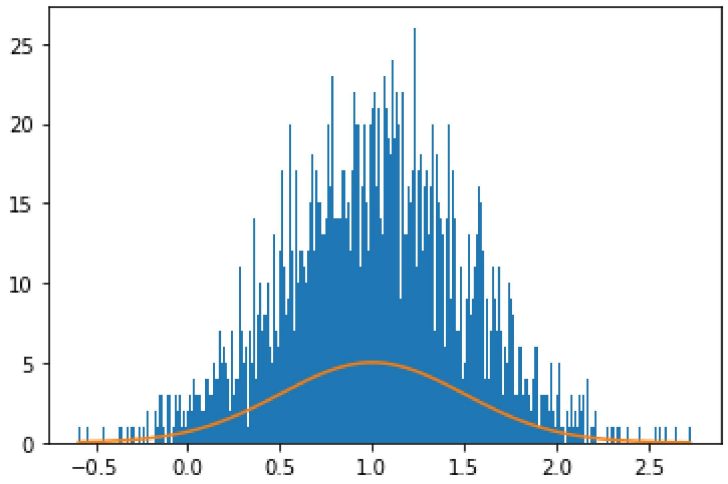
Exponential

In [11]:
```
import numpy as np
import matplotlib.pyplot as plt
exp=np.random.exponential(5,600)
count,bins,ignored=plt.hist(exp,15)
plt.show()
```



Normal

In [14]:
```
import matplotlib.pyplot as plt
import numpy as np
mu,sigma=1.0,0.5
s=np.random.normal(mu,sigma,2000)
count,bins,ingnored=plt.hist(s,300)
#distribution curve:
plt.plot(bins,1/sigma*np.sqrt(2*np.pi)*np.exp(-(bins-mu)**2/(2*sigma**2)))
plt.show()
```



In [ ]: