binomial, bernoulli

```
In [1]:
         from scipy.stats import binom
          import matplotlib.pyplot as plt
In [2]:
         n=10
         p=0.6
         r_values =list(range(n+1))
         dis =[binom.pmf(r,n,p) for r in r_values]
         plt.bar(r_values,dis)
         plt.show()
         0.25
         0.20
         0.15
         0.10
         0.05
         0.00
In [5]:
         from scipy.stats import bernoulli
          d=bernoulli(0.4)
         x = [0, 1]
         plt.bar(x,d.pmf(x))
         plt.show()
         0.6
         0.5
         0.4
         0.3
         0.2
         0.1
         0.0
```

poisson

-0.25

0.00

0.25

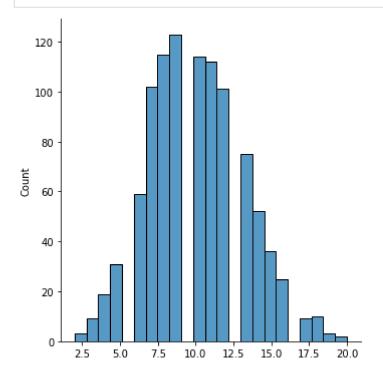
0.50

0.75

1.00

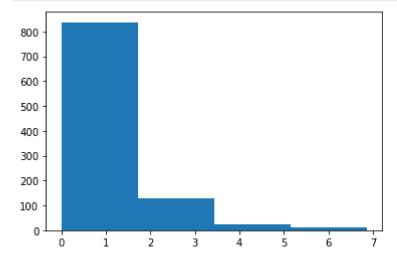
1.25

```
from numpy import random
  import matplotlib.pyplot as plt
  import seaborn as sns
  sns.displot(random.poisson(lam=10,size=1000))
  plt.show()
```



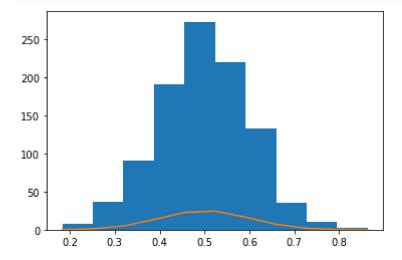
exponential

```
import numpy as np
import matplotlib.pyplot as plt
exp=np.random.exponential(1,1000)
count,bins,ignored=plt.hist(exp,4)
plt.show()
```



normal

```
import matplotlib.pyplot as plt
import numpy as np
mu,sigma =0.5,0.1
s=np.random.normal(mu,sigma,1000)
count,bins,ignored=plt.hist(s,10)
#distribution curve
plt.plot(bins,1/sigma*np.sqrt(2*np.pi)*np.exp(-(bins-mu)**2/(2*sigma**2)))
plt.show()
```



```
In [ ]:
```