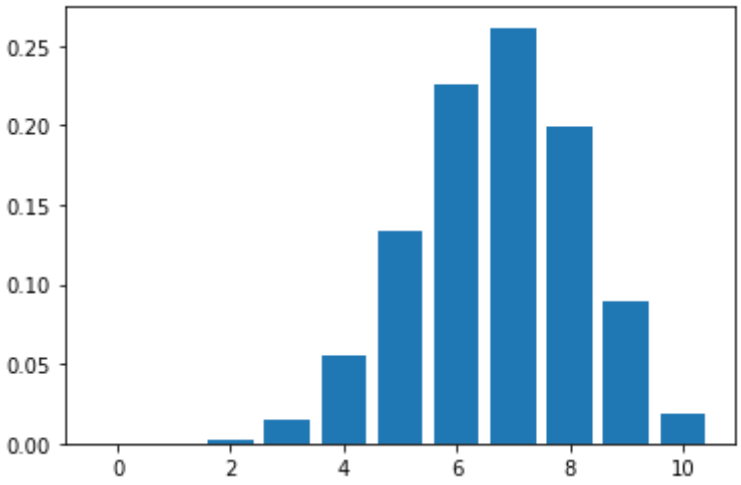
Probability

Binomial

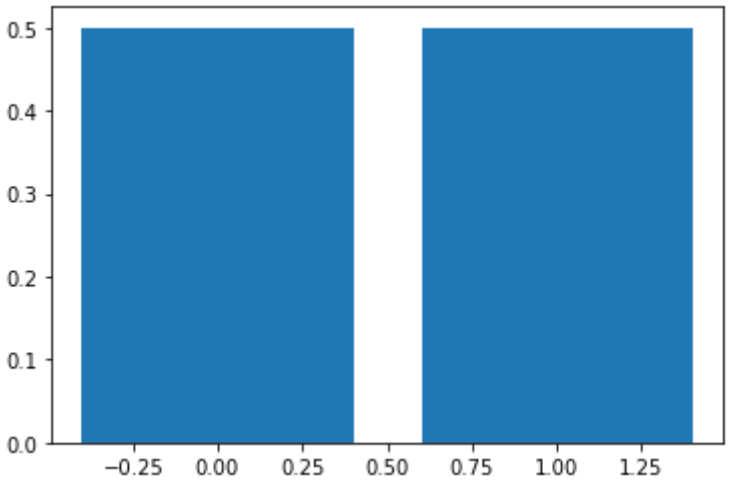
In [1]:
```
import numpy as np
from numpy import random
from scipy.stats import binom
import matplotlib.pyplot as plt
```

In [2]:
```
a=10
p=0.67
b_values=list(range(a+1))
dist=[binom.pmf(b,a,p) for b in b_values]
plt.bar(b_values,dist)
plt.show()
```



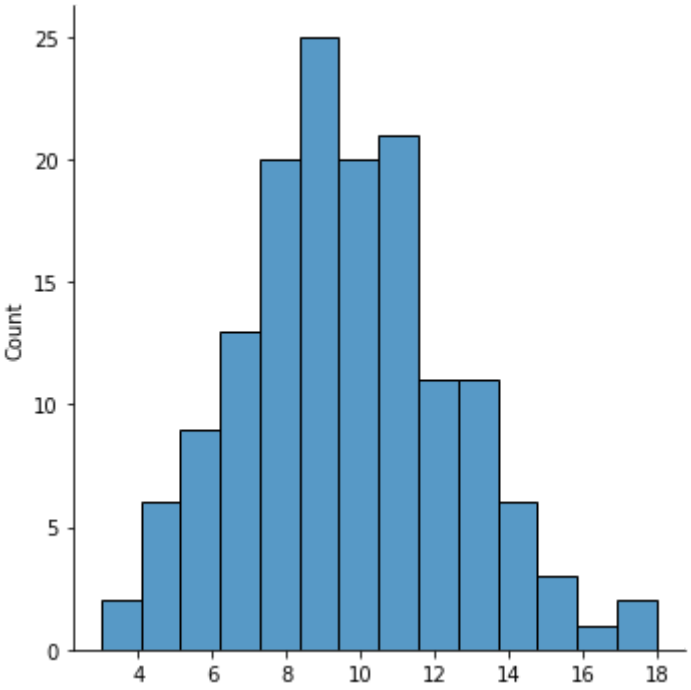
Bernoulli

In [3]:
```
from scipy.stats import bernoulli
c=bernoulli(0.5)
s=[0,1]
plt.bar(s,c.pmf(s))
plt.show()
```



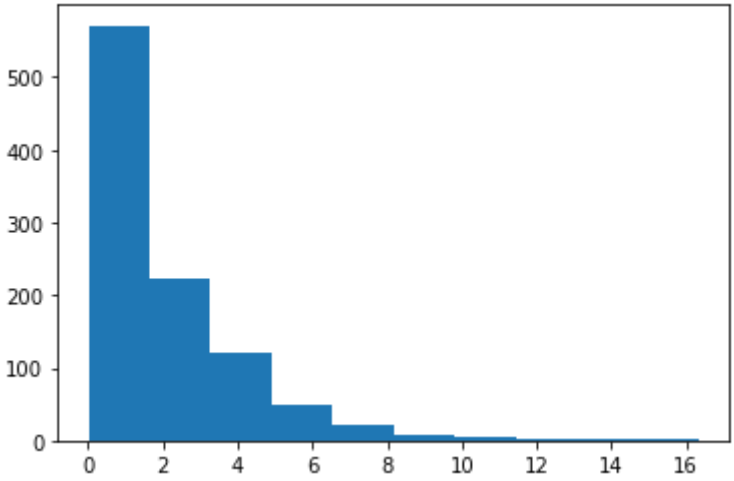
Poisson

In [5]:
```
import seaborn as sb
sb.displot(random.poisson(lam=10,size=150))
plt.show()
```



Exponential

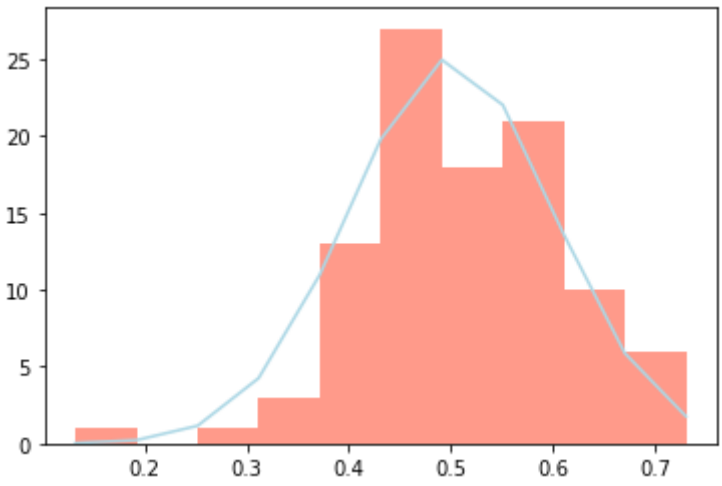
In [6]:
```
exp=np.random.exponential(2,1000)
count,bins,ignored=plt.hist(exp,10)
plt.show()
```



Normal Distribution

In [17]:

```
mu,sigma=0.5,0.1
s=np.random.normal(mu,sigma,100)
count,bins,ignored=plt.hist(s,10,color='#ff9a8a')
# Distrubution Plot:
plt.plot(bins,1/sigma*np.sqrt(2*np.pi)*np.exp(-(bins-mu)**2/(2*sigma**2)),color='lig
plt.show()
```



In [ ]: