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Discrete Distributions

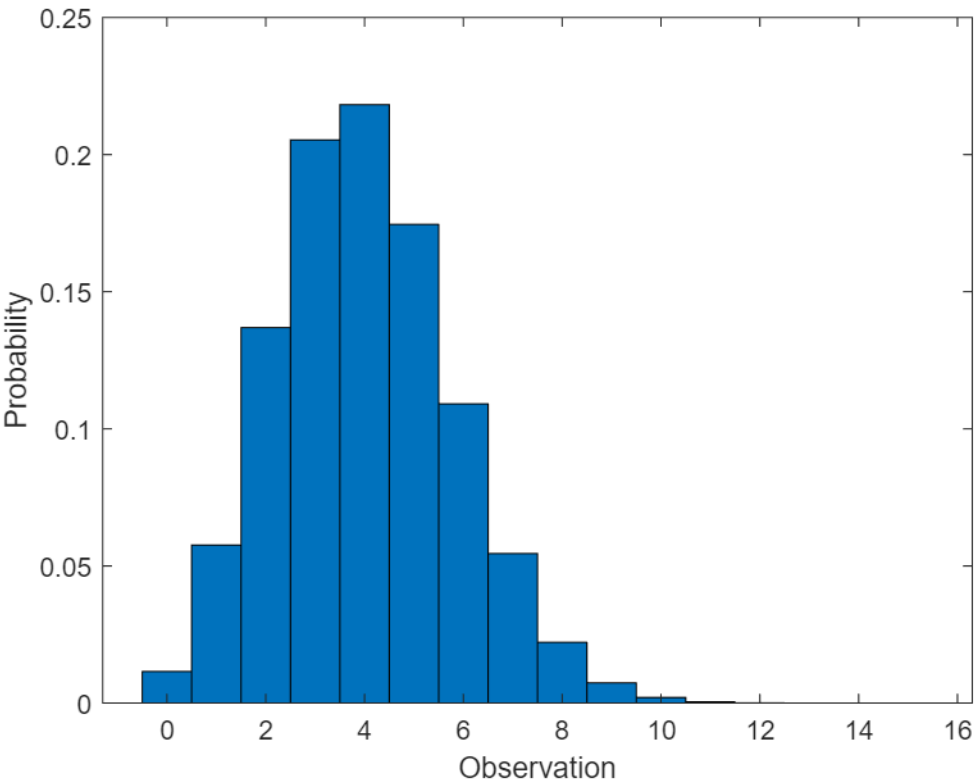
Binomial Distribution

Define the domain of  $x$  and parameters  $n$  (number of trials) and  $p$  (probability of success)

```
x = 0:15;  
n = 20;  
p = 0.2;  
y = binopdf(x,n,p);
```

Plot the pdf using bar plot.

```
figure  
bar(x,y,1)  
xlabel('Observation')  
ylabel('Probability')
```



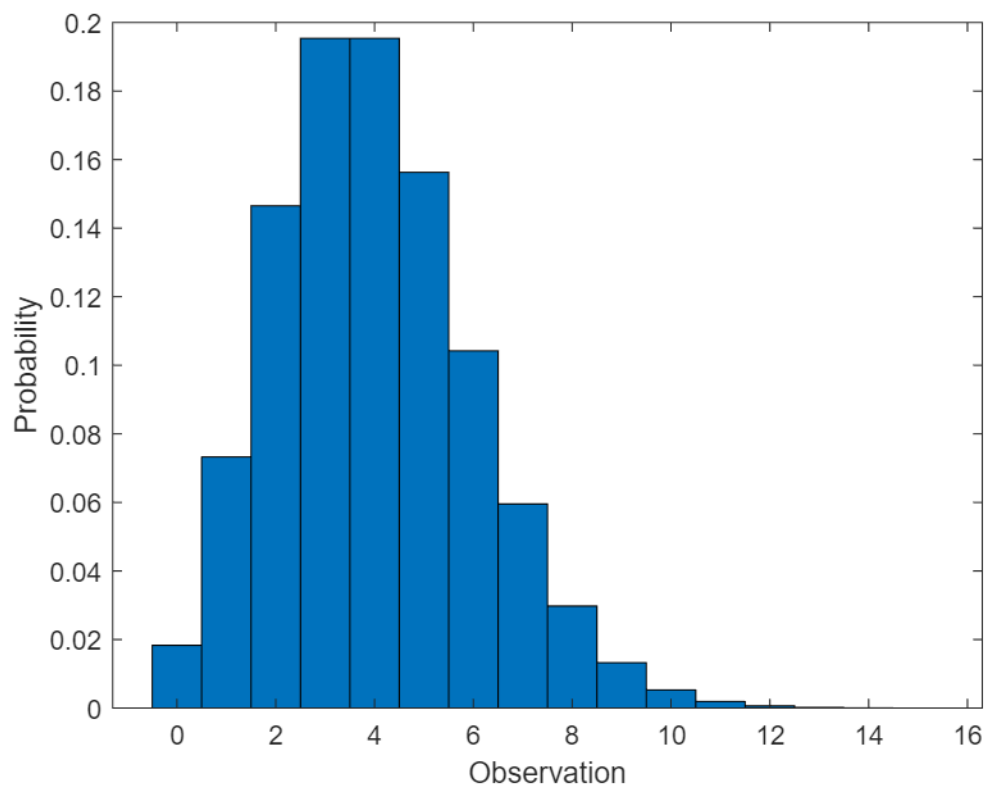
Poisson Distribution

Define the domain of  $x$  and the parameter  $\lambda$ .

```
x = 0:15;  
lambda = 4;  
y = poisspdf(x, 4);
```

Plot the pdf using bar plot.

```
figure  
bar(x,y,1)  
xlabel('Observation')  
ylabel('Probability')
```



## Continuous Distributions

### Uniform Distribution

Define the limits  $a$  and  $b$  where  $a < b$ .

```
x = 0:10;  
a = 0; b = 10;  
y = unifpdf(x,a,b);
```

Plot using line plot

```
figure;  
plot(x,y)
```

```
xlabel('Value')  
ylabel('Probability Density')
```

