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# Discrete Distributions

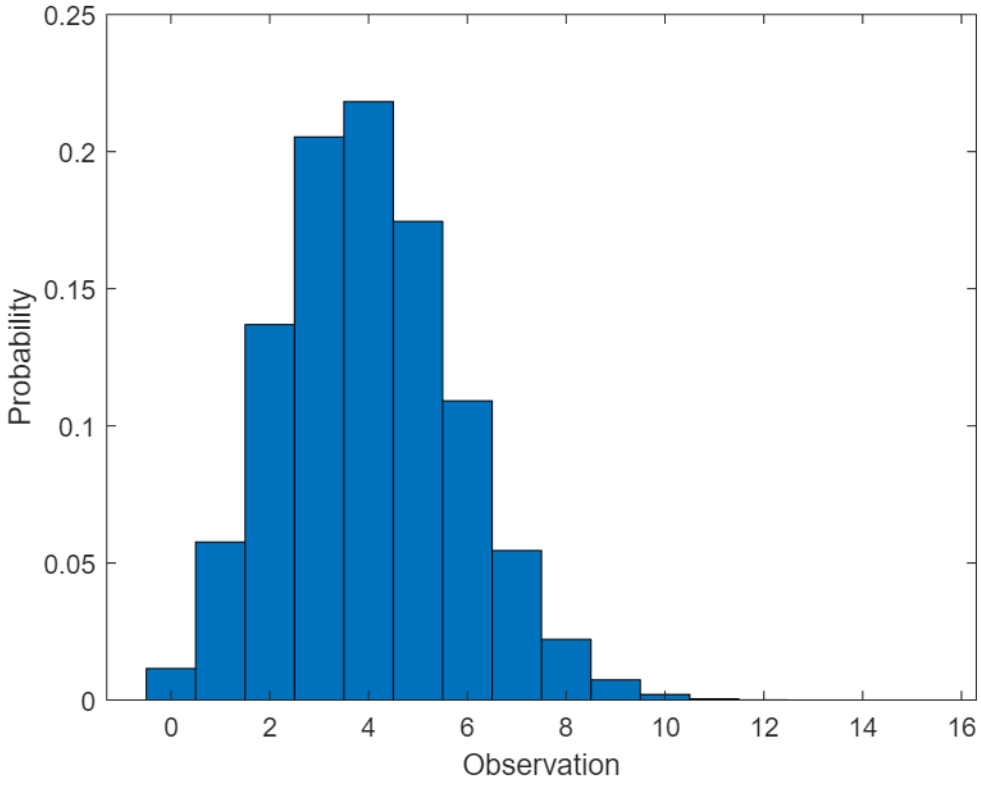
## Binomial Distribution

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')
```



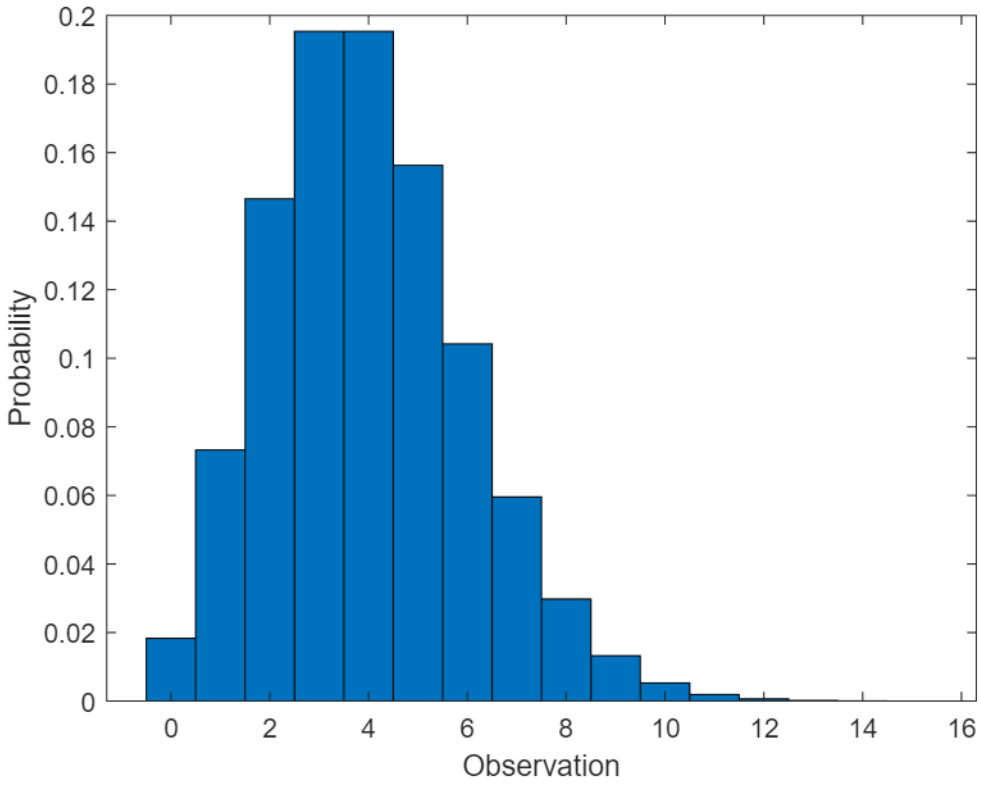

## Poisson Distribution

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')
```