

```

N = 1000;
M = 50;
n = 20;
x = 0:10;
y = hygepdf(x, N, M, n);

```

```

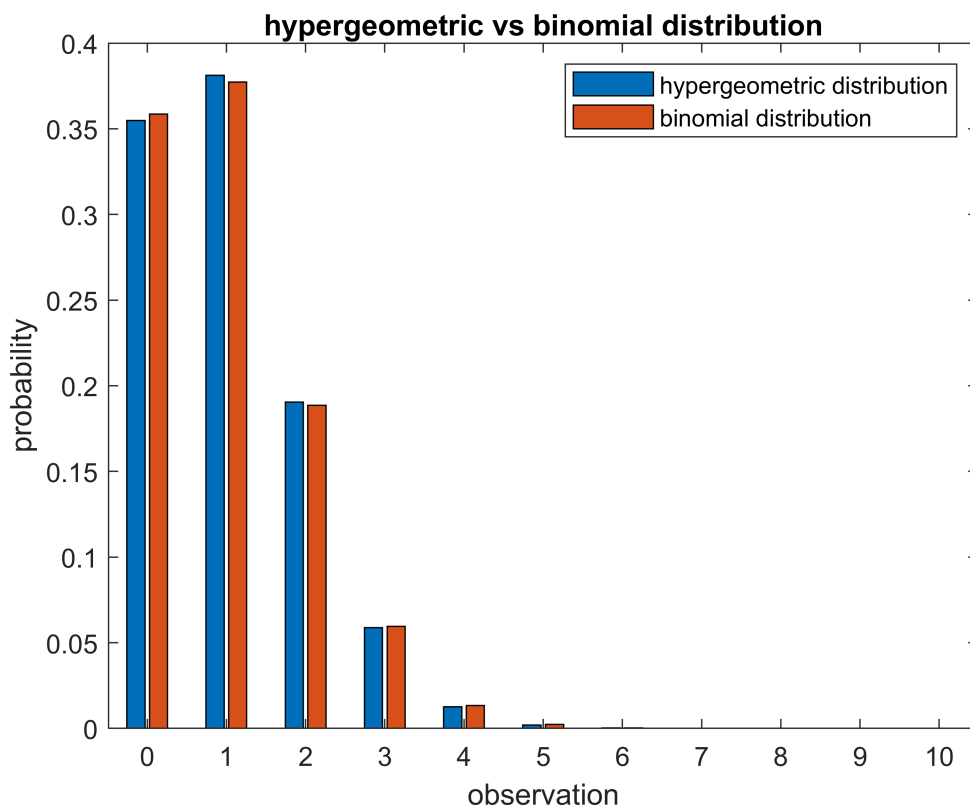
p = M/N;
y1 = binopdf(x, n, p);

```

```

figure
bar(x, [y; y1])
hold on
xlabel('observation')
ylabel('probability')
title('hypergeometric vs binomial distribution')
legend('hypergeometric distribution', 'binomial distribution')
hold off

```



```

N = 100;
M = 20;
n = 30;
x = 0:20;
y = hygepdf(x, N, M, n);

```

```
p = M/N;  
y1 = binopdf(x, n, p);
```

```
figure  
bar(x, [y;y1])  
hold on  
xlabel('observation')  
ylabel('probability')  
title('hypergeometric and binomial distribution')  
legend('hypergeometric distribution', 'binomial distribution')  
hold off
```

