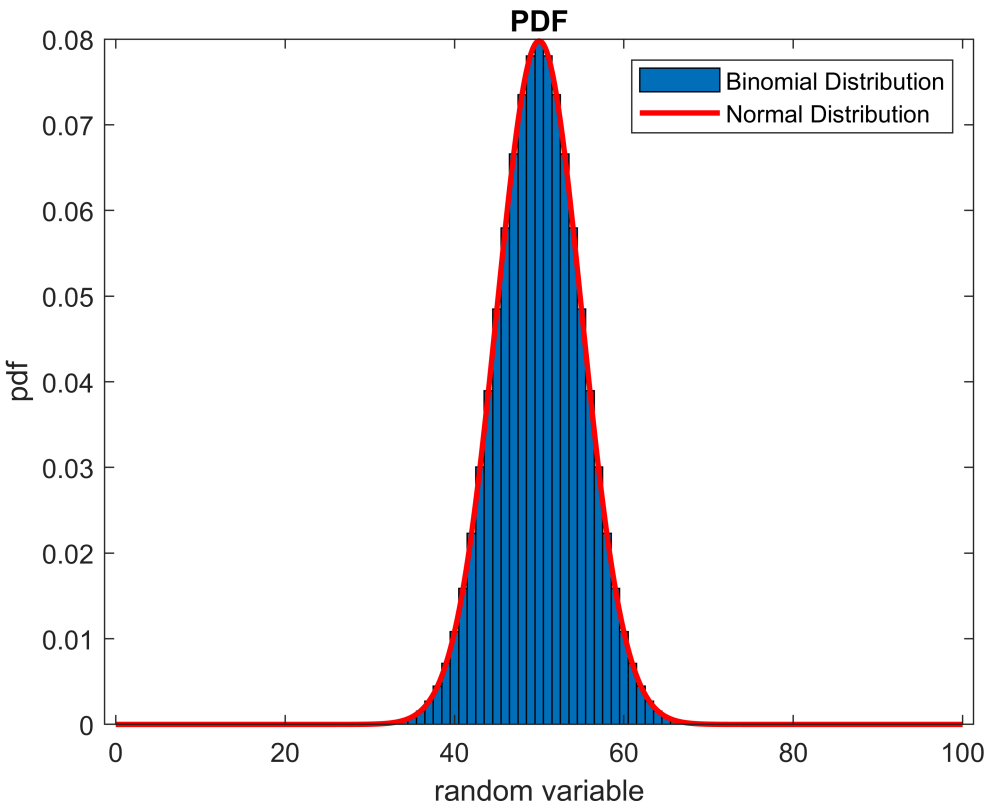
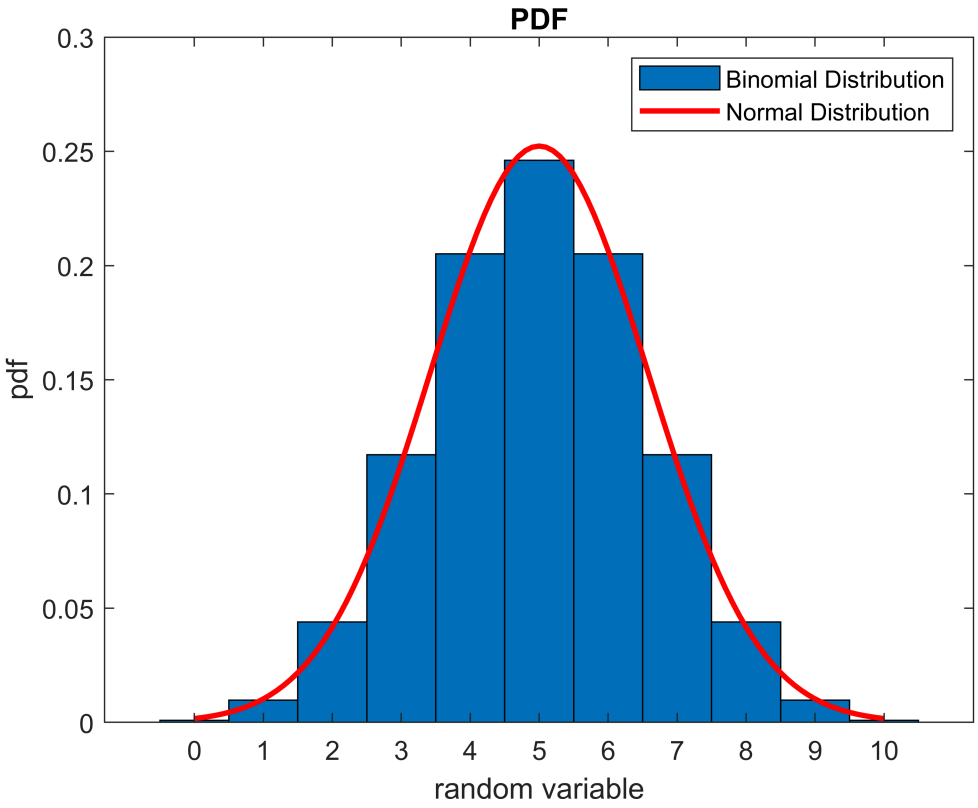
```
n = 100;
x = 0:100;
p = 0.5;
y = binopdf(x, n, p);
mean = n*p;
sigma = sqrt(n*p*(1-p));
x2 = 0:0.1:n;
y2 = normpdf(x2, mean, sigma);
```

```
bar(x, y, 1)
hold on
plot(x2, y2, "r-", "LineWidth", 2)
xlabel("random variable")
ylabel("pdf")
title("PDF")
legend("Binomial Distribution", "Normal Distribution")
hold off
```




```
n = 10;
x = 0:10;
p = 0.5;
y = binopdf(x, n, p);
mean = n*p;
sigma = sqrt(n*p*(1-p));
x2 = 0:0.1:n;
y2 = normpdf(x2, mean, sigma);
```

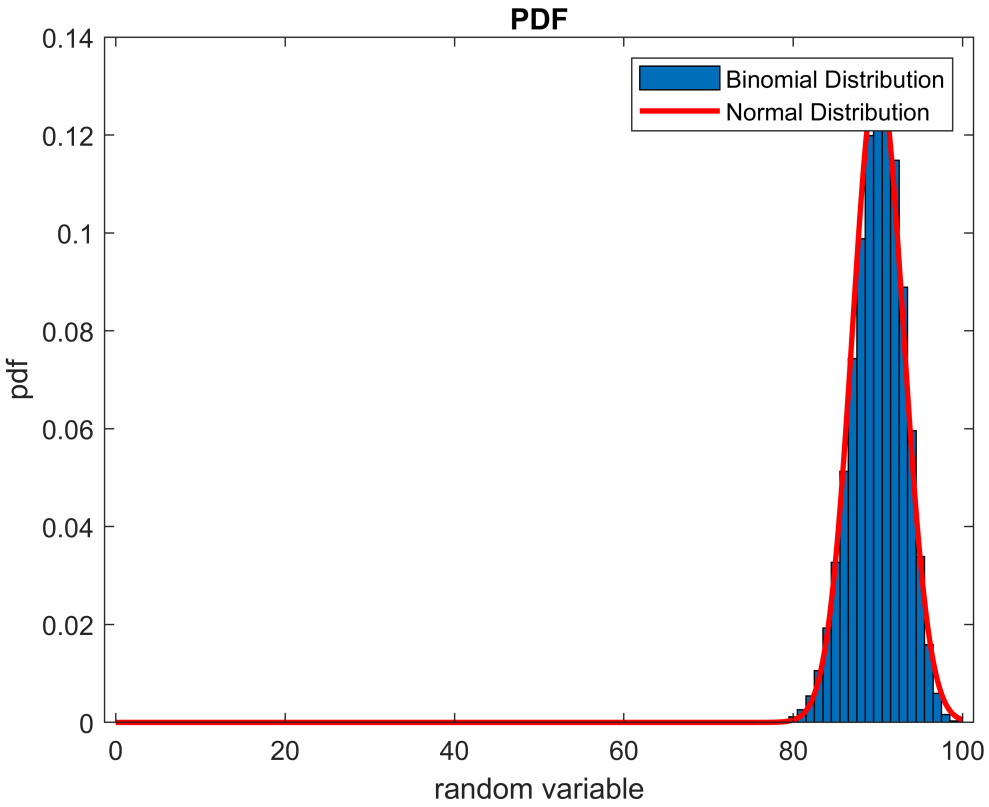
```
bar(x, y, 1)
hold on
plot(x2, y2, "r-", "LineWidth", 2)
xlabel("random variable")
ylabel("pdf")
title("PDF")
legend("Binomial Distribution", "Normal Distribution")
hold off
```




```
n = 100;
x = 0:100;
p = 0.9;
y = binopdf(x, n, p);
mean = n*p;
sigma = sqrt(n*p*(1-p));
x2 = 0:0.1:n;
y2 = normpdf(x2, mean, sigma);
```

```
bar(x, y, 1)
hold on
plot(x2, y2, "r-", "LineWidth", 2)
xlabel("random variable")
ylabel("pdf")
title("PDF")
legend("Binomial Distribution", "Normal Distribution")
```

```
hold off
```


PDF
Binomial Distribution
Normal Distribution
pdf
random variable
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
20
40
60
80
100