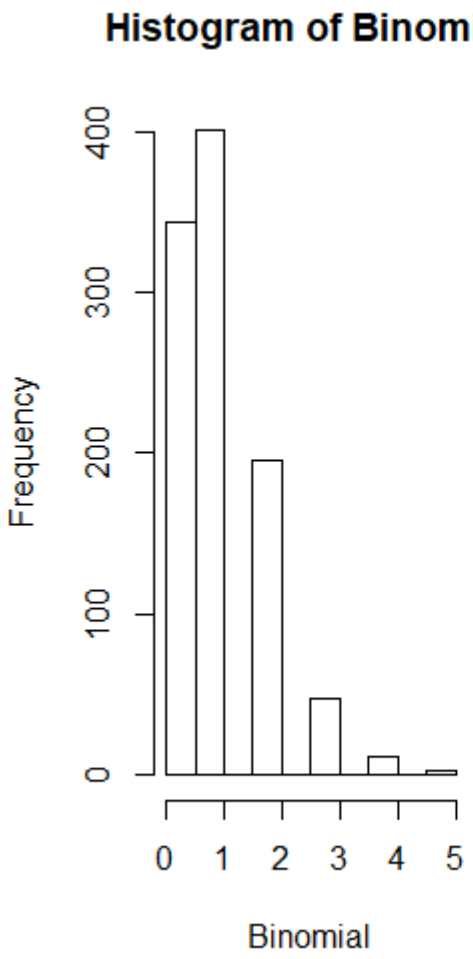
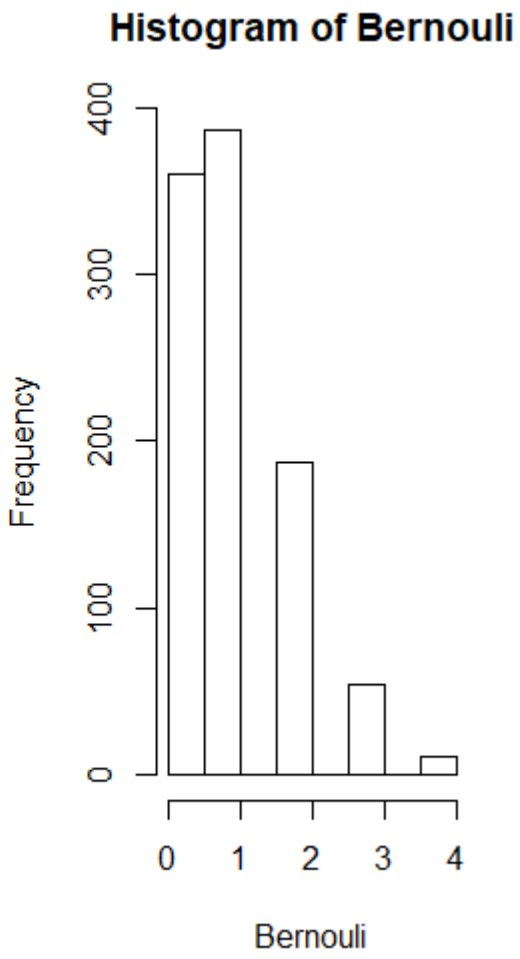
LAB 10

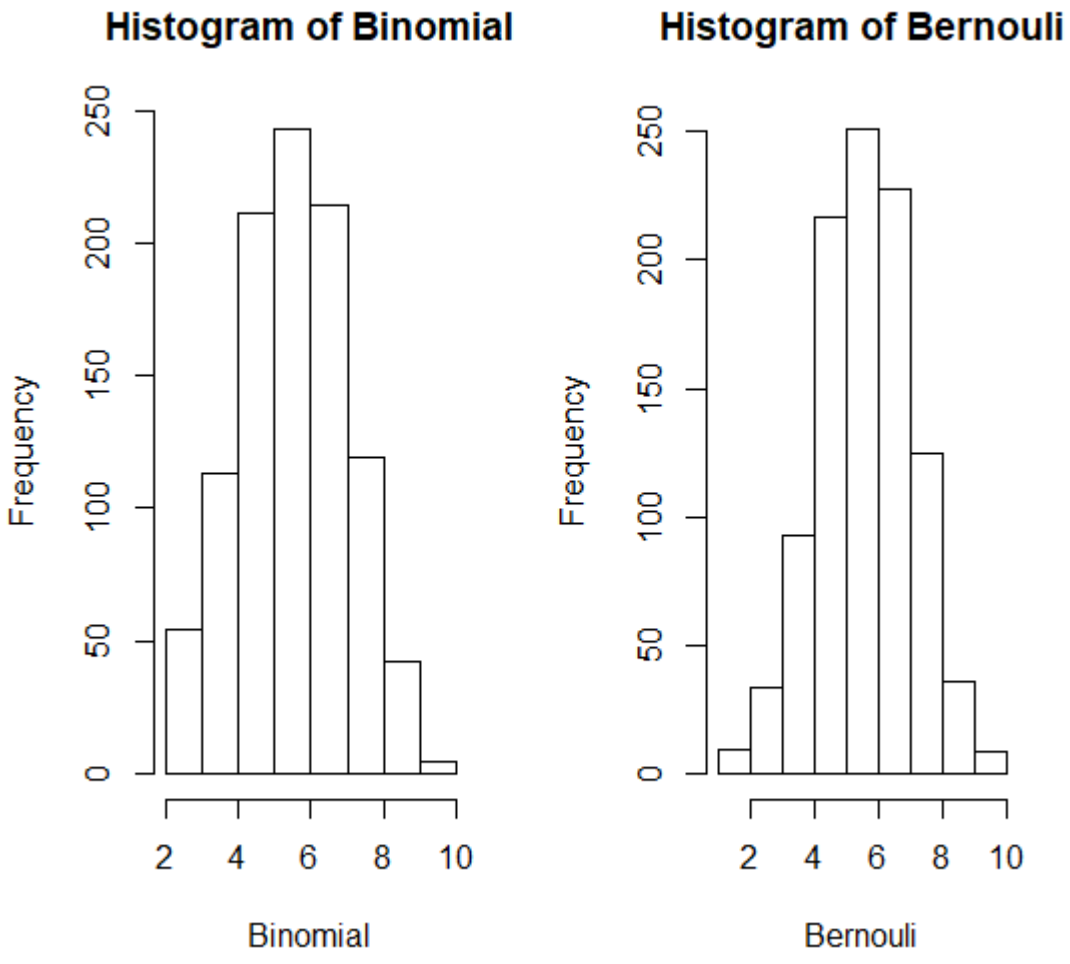
Q.N.1

N=10, P=0.1

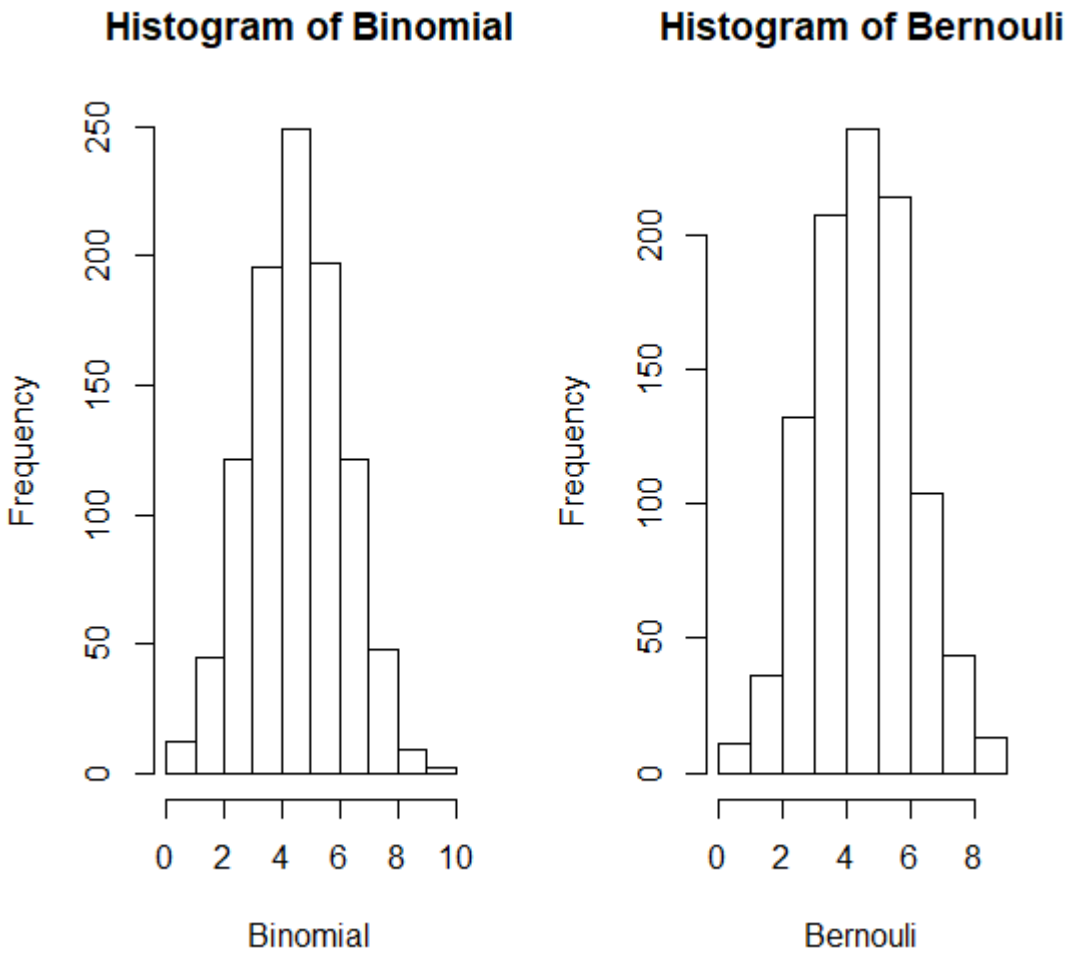




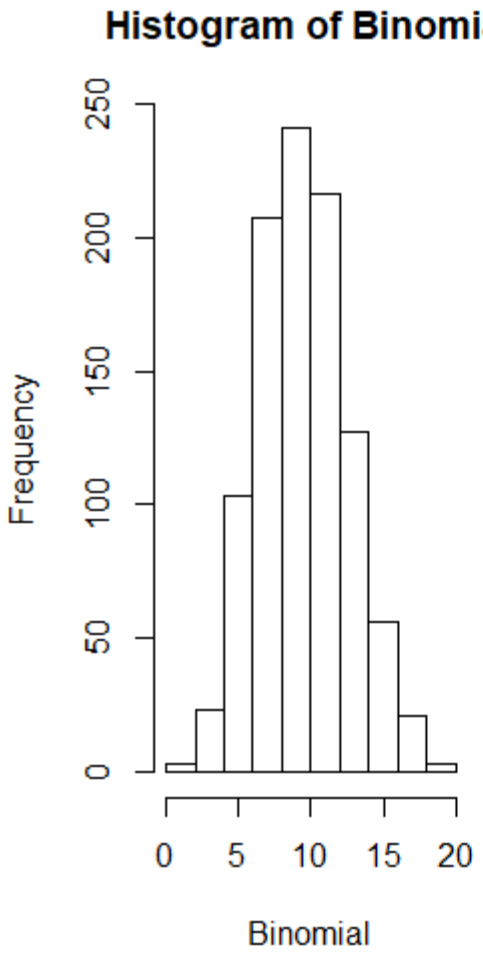
N=10, P=0.6

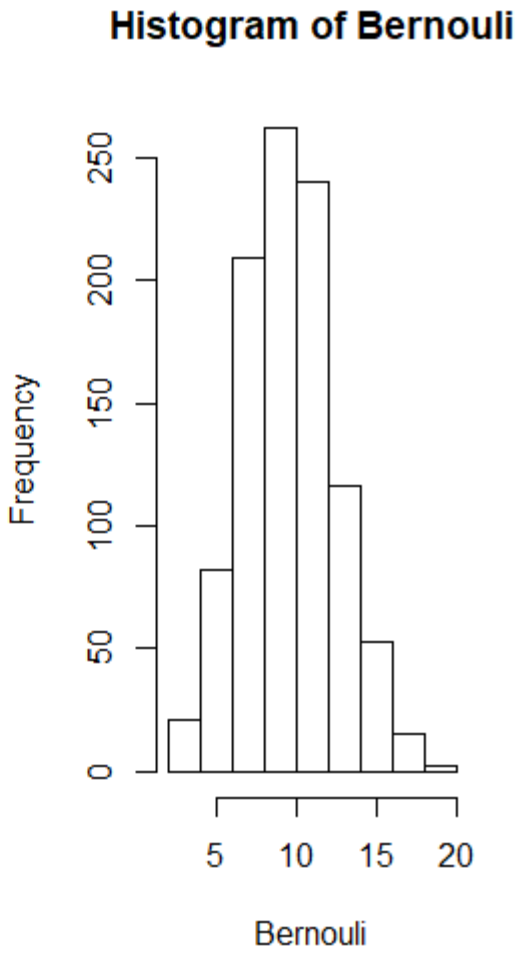

Histogram of Binomial
Frequency
0
50
100
150
200
250
2
4
6
8
10
Binomial
Histogram of Bernouli
Frequency
0
50
100
150
200
250
2
4
6
8
10
Bernouli

N=10, P=0.5

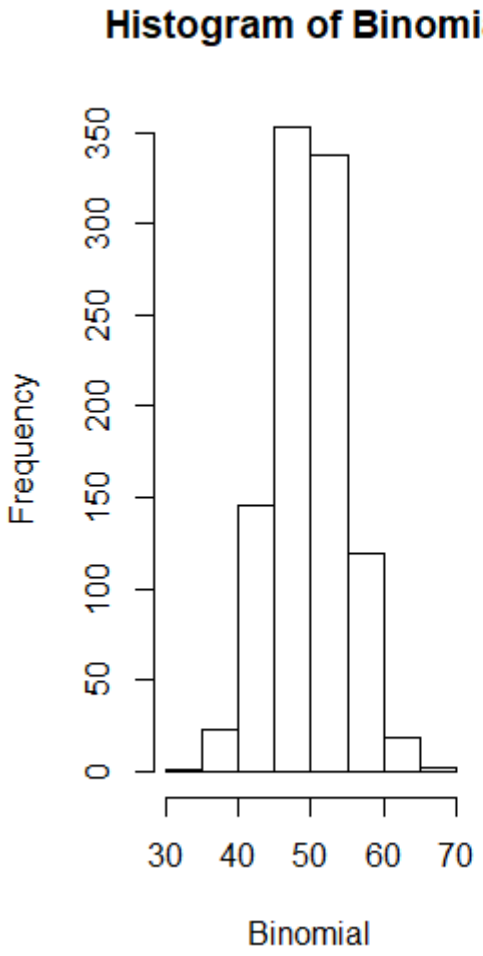


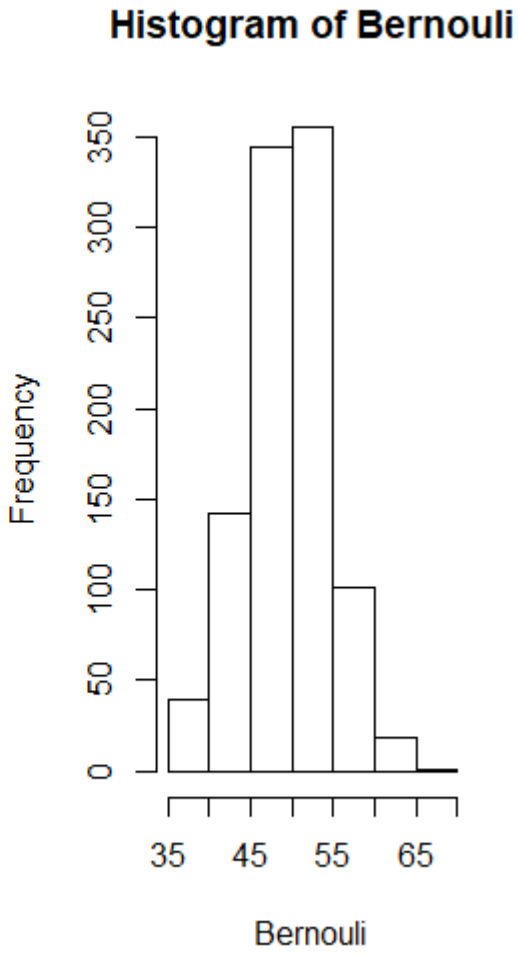
N=100 P=0.1


Histogram of Binomial
Frequency
0
50
100
150
200
250
0
5
10
15
20
Binomial

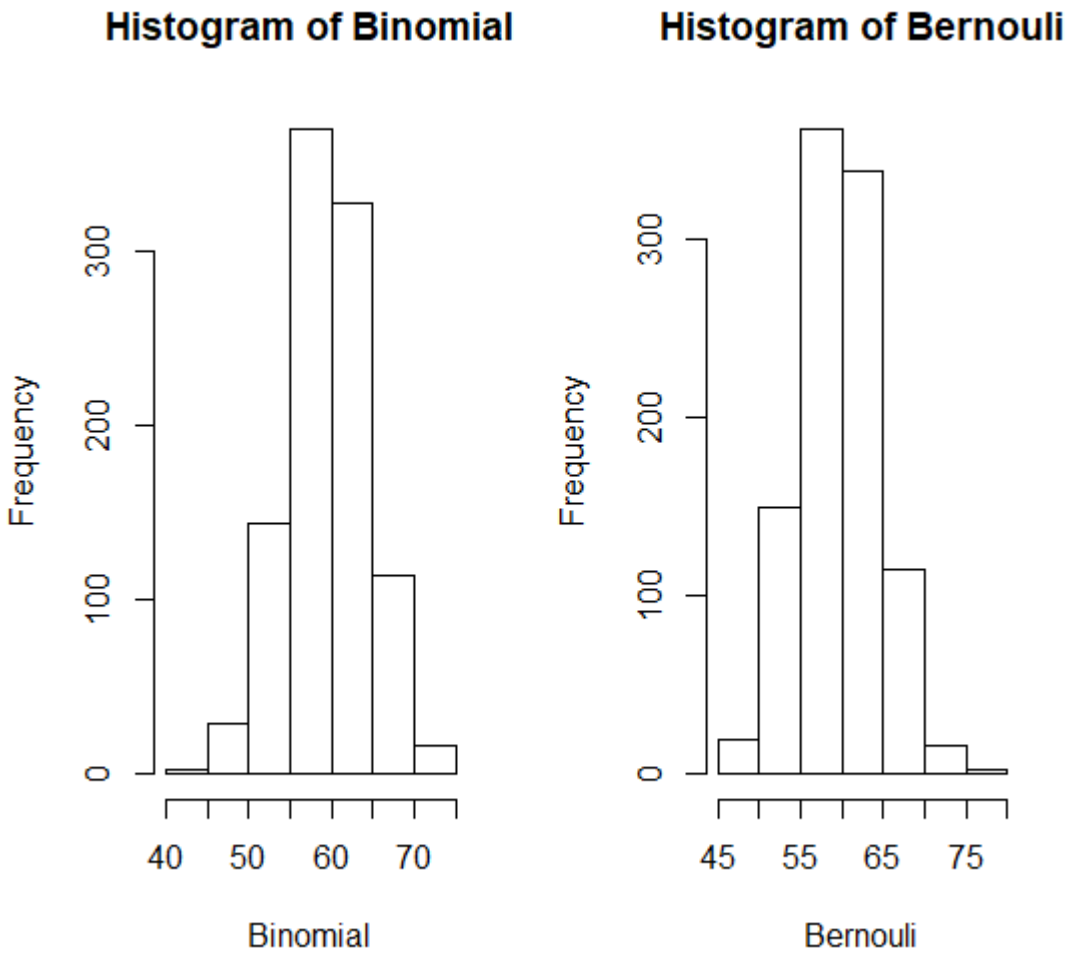

Histogram of Bernouli
Frequency
0
50
100
150
200
250
5
10
15
20
Bernouli

N=100 P=0.5

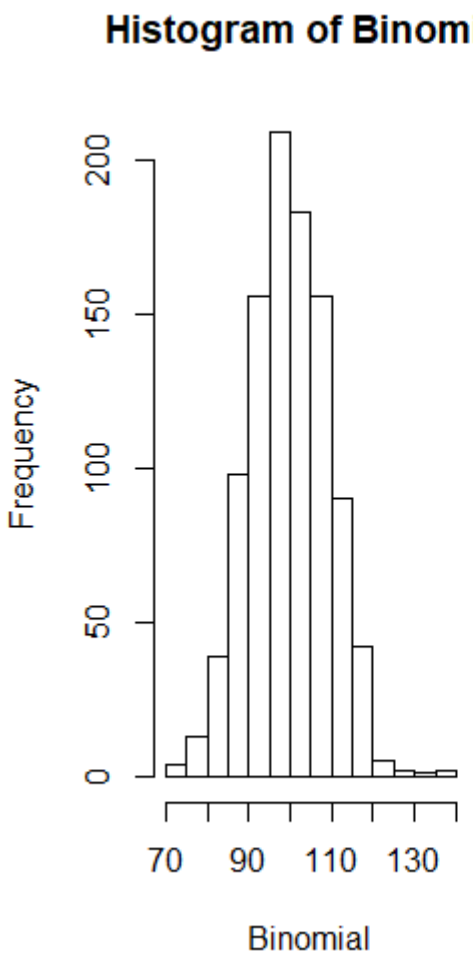

Histogram of Binomial
Frequency
0
50
100
150
200
250
300
350
30
40
50
60
70
Binomial

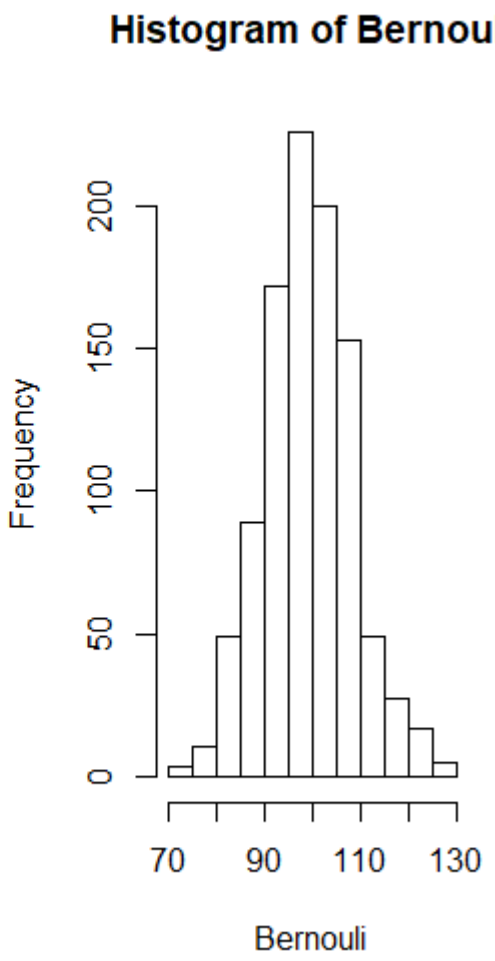

Histogram of Bernouli
Frequency
0
50
100
150
200
250
300
350
35
45
55
65
Bernouli

N=100, P=0.6

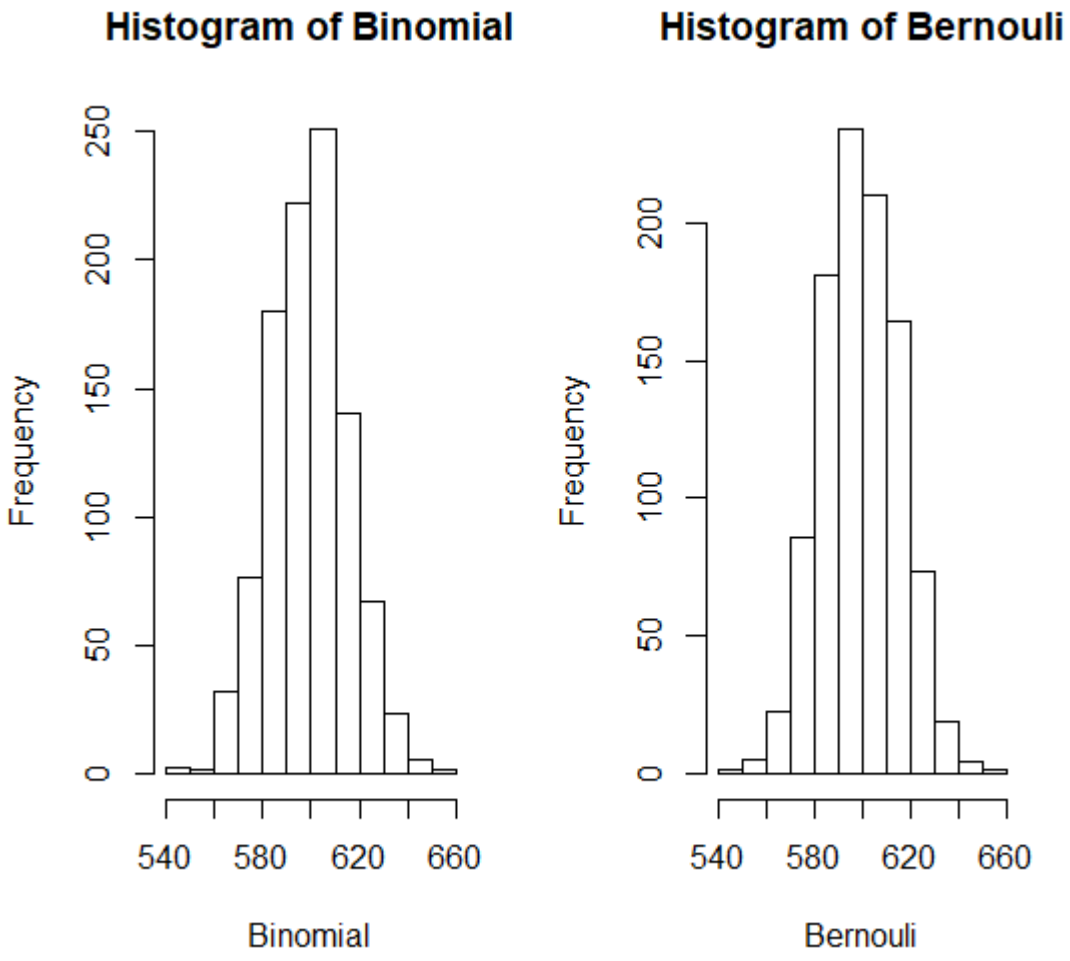

Histogram of Binomial
Frequency
0
100
200
300
40
50
60
70
Binomial
Histogram of Bernouli
Frequency
0
100
200
300
45
55
65
75
Bernouli

N=1000, P=0.1

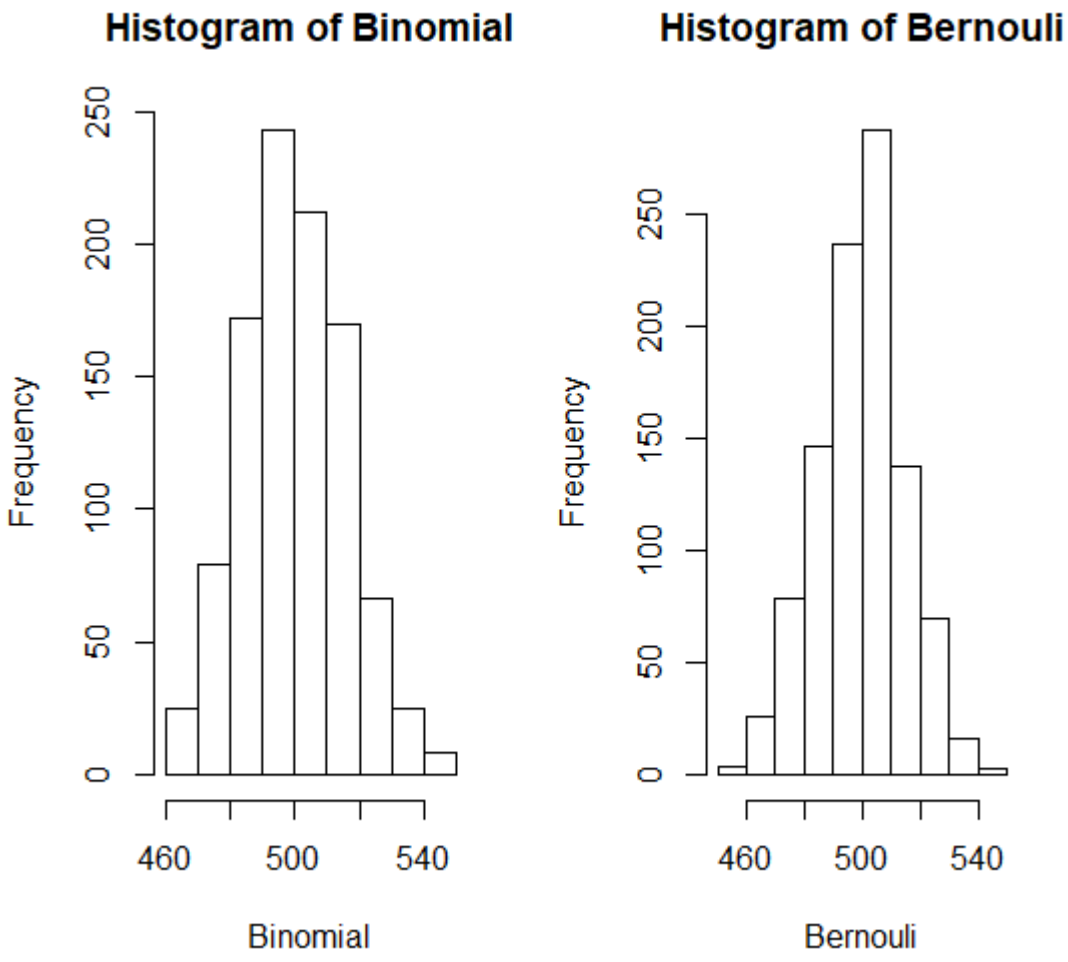

Histogram of Binomial
Frequency
0
50
100
150
200
70
90
110
130
Binomial


Histogram of Bernouli
Frequency
0
50
100
150
200
70
90
110
130
Bernouli

N= 1000 p=0.6


Histogram of Binomial
Frequency
0
50
100
150
200
250
540
580
620
660
Binomial
Histogram of Bernouli
Frequency
0
50
100
150
200
540
580
620
660
Bernouli

N=1000, P=0.5


Histogram of Binomial
Frequency
0
50
100
150
200
250
460
500
540
Binomial
Histogram of Bernouli
Frequency
0
50
100
150
200
250
460
500
540
Bernouli

Q1.3

With increase in probability number of success increases and histogram seems to shift to right (as frequency of more number of success will increase).

With increase in ‘n’, histogram distributed more uniformly on both side of the peak frequency.

Q1.4

Yes, it can be approximated with Bernoulli distribution with parameter 1.

LAB10.EX2:

1. fraction of products that were thrown out as defective: - **0.0192474**

2. the fraction of products that either had wrong paint or did not have radius between 9.6cm and 10.4cm.- **0.01841784**

3. the fraction of products that had the right paint and radius between 9.6cm and 10.4cm, but were still classified as defective**- 0.001700835**

4. the fraction of products that had either wrong paint or wrong radius but were not throw out.- **0.0006144156**