

```

x <- seq(0, 30, 0.1)
plot(x, dchisq(x, df=4), type="l")

sample_size <- c(10,25,50,75,100) #Given sample sizes
repeat_count <- c(10,100,500,1000,10000) #Given repeat values

set.seed(100)

for (j in sample_size){

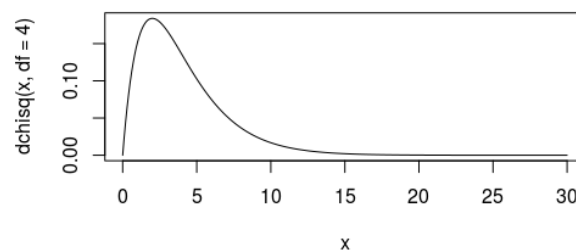
  for (i in repeat_count){

    print('Plotting for new Sample Size and Repeat values')
    sample_means = c()

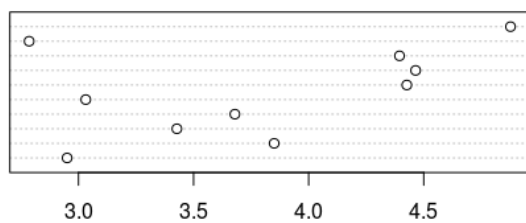
    for(k in 1: i){
      sample = rchisq(n=j, df = 4)
      sample_means <- c(sample_means, mean(c(sample)))
    }

    str= sprintf("Number of Repetitions=%d and sample size=%d", i, j)
    dotchart(sample_means, main = str)
  }
}

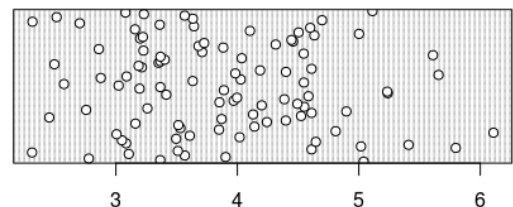
```



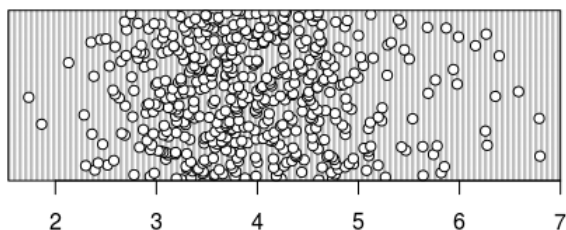
**Number of Repetitions=10 and sample size=10**



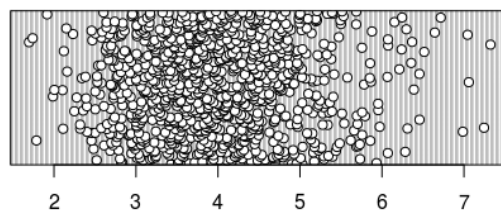
**Number of Repetitions=100 and sample size=10**



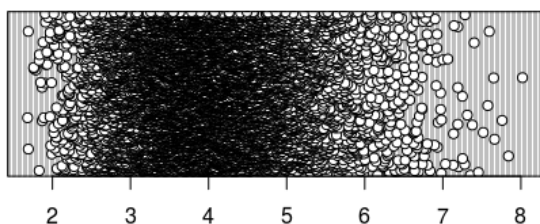
Number of Repetitions=500 and sample size=10



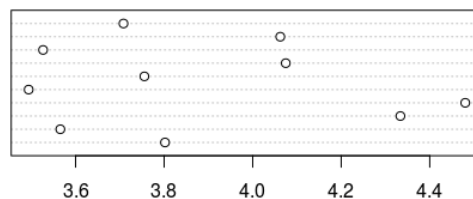
Number of Repetitions=1000 and sample size=10



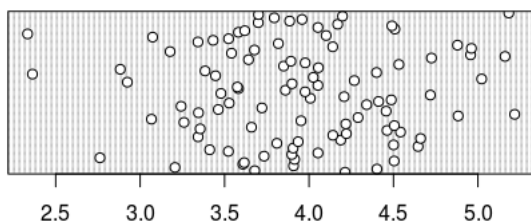
Number of Repetitions=10000 and sample size=10



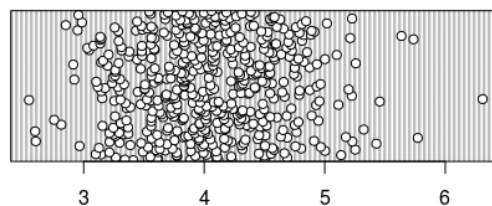
Number of Repetitions=10 and sample size=25



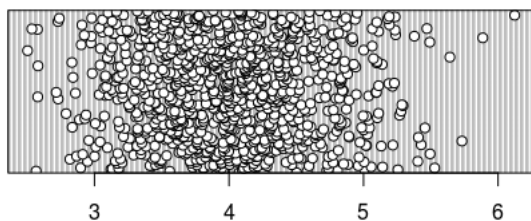
Number of Repetitions=100 and sample size=25



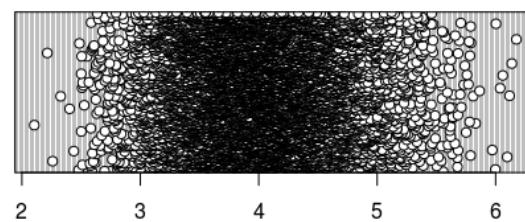
Number of Repetitions=500 and sample size=25



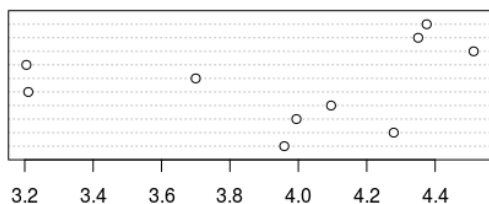
Number of Repetitions=1000 and sample size=25



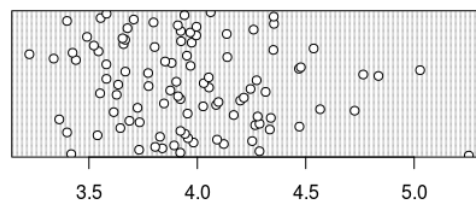
Number of Repetitions=10000 and sample size=25



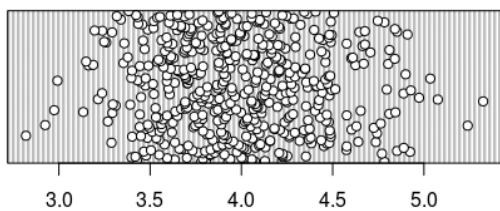
Number of Repetitions=10 and sample size=50



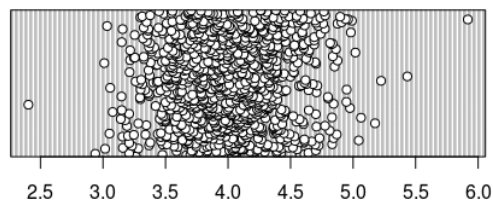
Number of Repetitions=100 and sample size=50



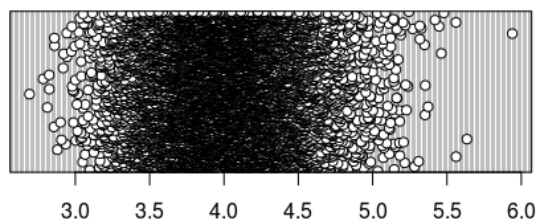
Number of Repetitions=500 and sample size=50



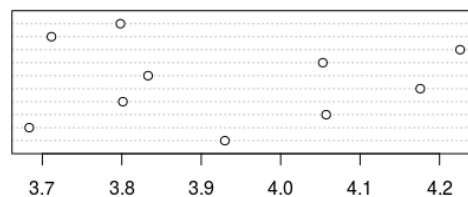
Number of Repetitions=1000 and sample size=50



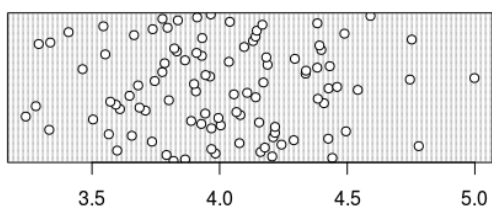
Number of Repetitions=10000 and sample size=50



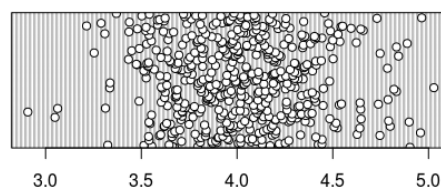
Number of Repetitions=10 and sample size=75



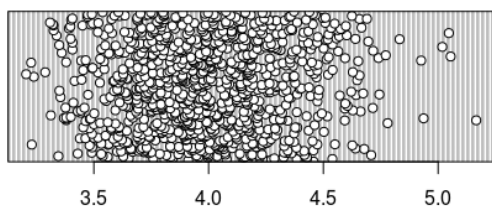
Number of Repetitions=100 and sample size=75



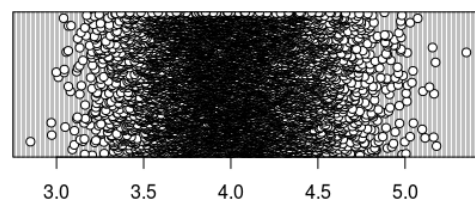
Number of Repetitions=500 and sample size=75



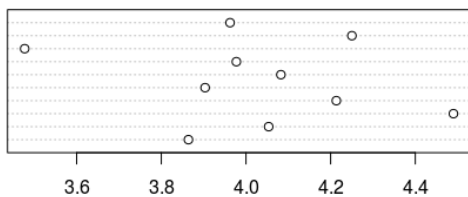
Number of Repetitions=1000 and sample size=75



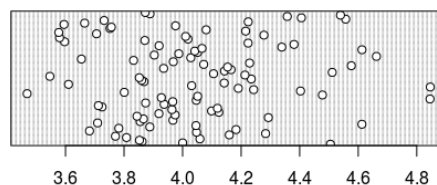
Number of Repetitions=10000 and sample size=75



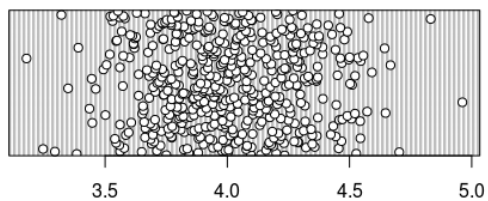
Number of Repetitions=10 and sample size=100



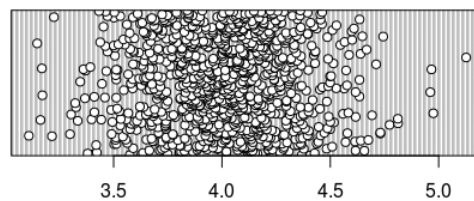
Number of Repetitions=100 and sample size=100



**Number of Repetitions=500 and sample size=100**



**Number of Repetitions=1000 and sample size=100**



**Number of Repetitions=10000 and sample size=100**

