```
>
> x = c(0:5) #class limits
> f = c(139, 76, 28, 4, 2, 1) #frequency
> n = length(x);
> #maximum value of the range
> N = sum(f) #total number of observations
> s.mean = sum(f * x) / N #sample mean
> p = s.mean;
> #probability of success
> p
[1] 0.628
> Ef = N * dpois(x, p) #expected frequency
> A = data.frame(x, f, Ef) #data frame
> A;
  x   f          Ef
1 0 139 133.4145126
2 1  76  83.7843139
3 2  28  26.3082746
4 3   4   5.5071988
5 4   2   0.8646302
6 5   1   0.1085976
> plot(f, Ef, xlab = "observed", ylab = "expected", type = "p") #plot
> abline(0, 1) #plotting the line y = x
> x1 = x[1:3];
> #class limits of the first 3 classes
> x1
[1] 0 1 2
> f1 = c(f[1:2], sum(f[3:5]));
> #frequency of the first 3 classes
> f1
[1] 139  76  34
> ef1 = c(Ef[1:2], sum(Ef[3:5])) #expected frequency of the first 3 classes
> oes = (f1 - ef1) ^ 2 #observed minus expected squared
> oee = oes / ef1 #observed minus expected squared divided by expected
> cch = sum(oee);
> #chi square value
> cch
[1] 1.010381
> tcn = qchisq(1 - 0.05, length(oee) - 1 - 1) #critical chi square value
> tcn
[1] 3.841459
> if (tcn > cch) {
+   #comparing the chi square values
+   g = c("Hypothesis is correct")
+   print(g)
+ }
[1] "Hypothesis is correct"
> if (cch > tcn) {
+   g = c("Hypothesis is incorrect")
+   print(g)
+ }
> g
[1] "Hypothesis is correct"
>
> x = c(0:3) #class limits
> f = c(f[1:3], sum(f[4:6])) #frequency of the first 3 classes
> ef1 = c(ef1[1:3], sum(ef1[4:6])) #expected frequency of the first 3 classes
>
```