|  |  |
| --- | --- |
|  |  |
| plotNormalHistogram(YouTubeChannels$Video.views) | #SQRT  YouTubeChannels$Video.viewsSQRT<-sqrt(YouTubeChannels$Video.views)  plotNormalHistogram(YouTubeChannels$Video.viewsSQRT) |

#Checked with LOG



#checked homogeneity of variance (does not meet the assumption)

Bartlett test of homogeneity of variances

data: Video.viewsSQRT by Grade

Bartlett's K-squared = 1107.1, df = 5, p-value <

2.2e-16

Pairwise comparisons using t tests with non-pooled SD

# Post Hocs with unequal variance

ANOVA1<-1m(Video.viewsSQRT)

anova(ANOVA1,Type="II",white.adjust=TRUE)

pairwise.t.test(YouTubeChannels$Video.viewsSQRT, YouTubeChannels$Grade, p.adjust="bonferroni", pool.sd = FALSE)

data: YouTubeChannels$Video.viewsSQRT and YouTubeChannels$Grade

A- A Â  A+ A++

A < 2e-16 - - - -

Â  0.00146 1.7e-05 - - -

A+ 2.2e-09 1.9e-05 8.9e-14 - -

A++ 0.00029 0.00084 6.8e-05 0.00874 -

B+ < 2e-16 < 2e-16 0.03203 2.1e-11 0.00017

P value adjustment method: bonferroni

> YouTubeChannelsMeans <- YouTubeChannels %>% group\_by(Grade) %>% summarize(Mean = mean(Video.views))



The higher grades receive significantly higher views than the lower grades, however, all grades differ from each other in the views they receive, as shown in the graph. The views are scattered all over the graph.