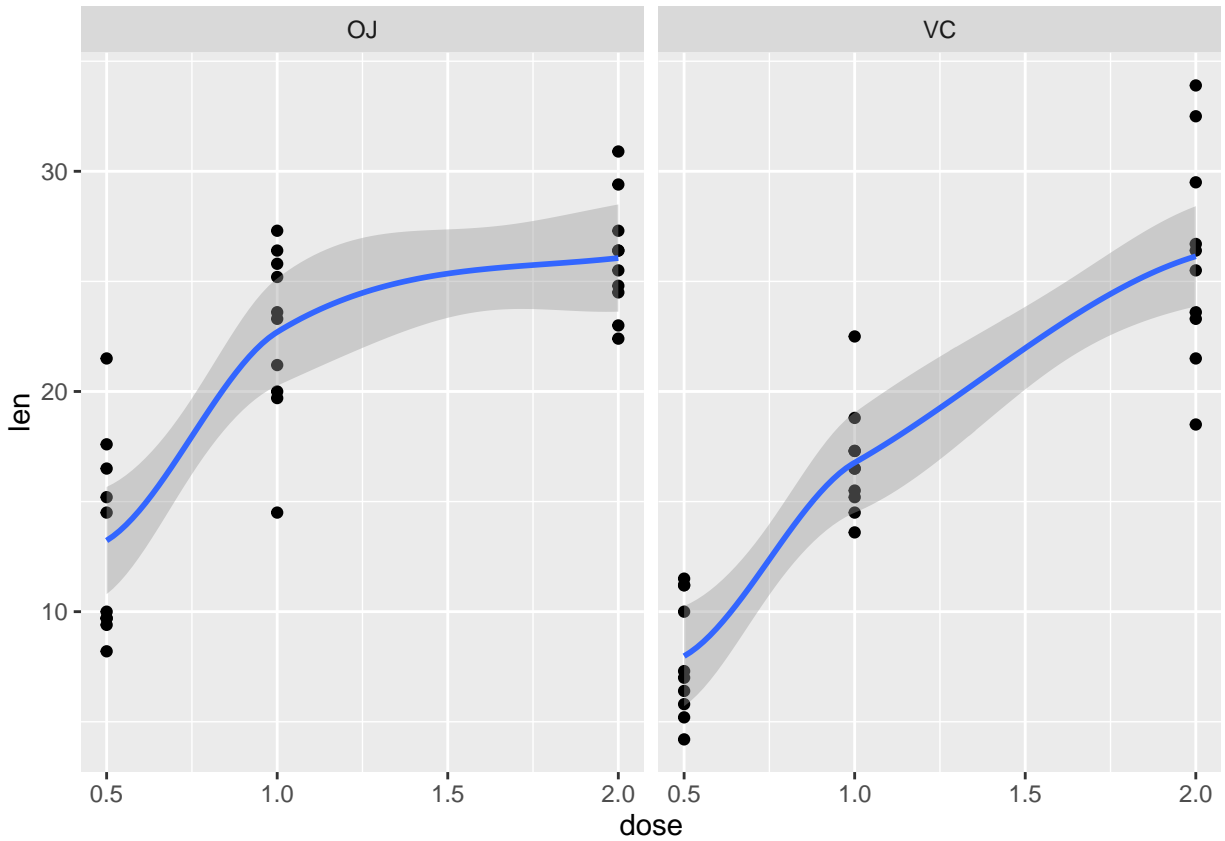


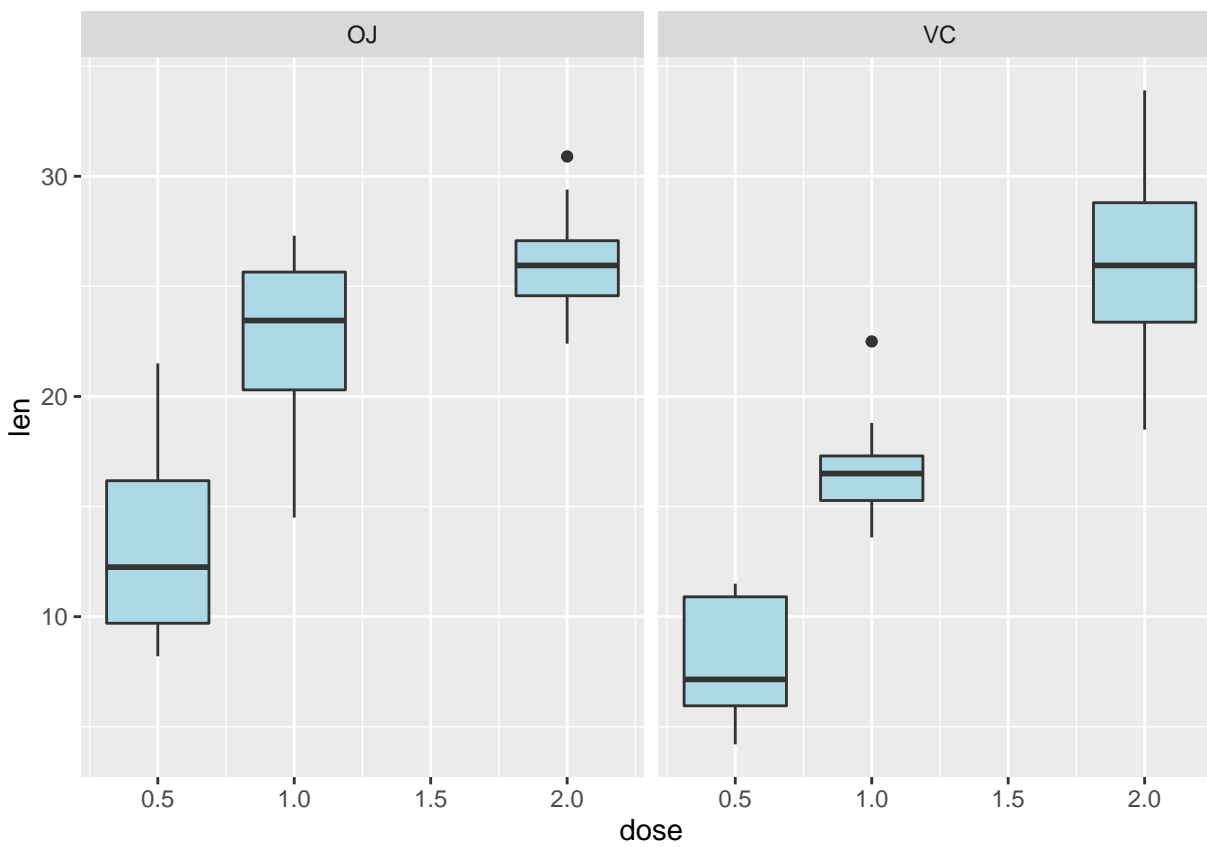
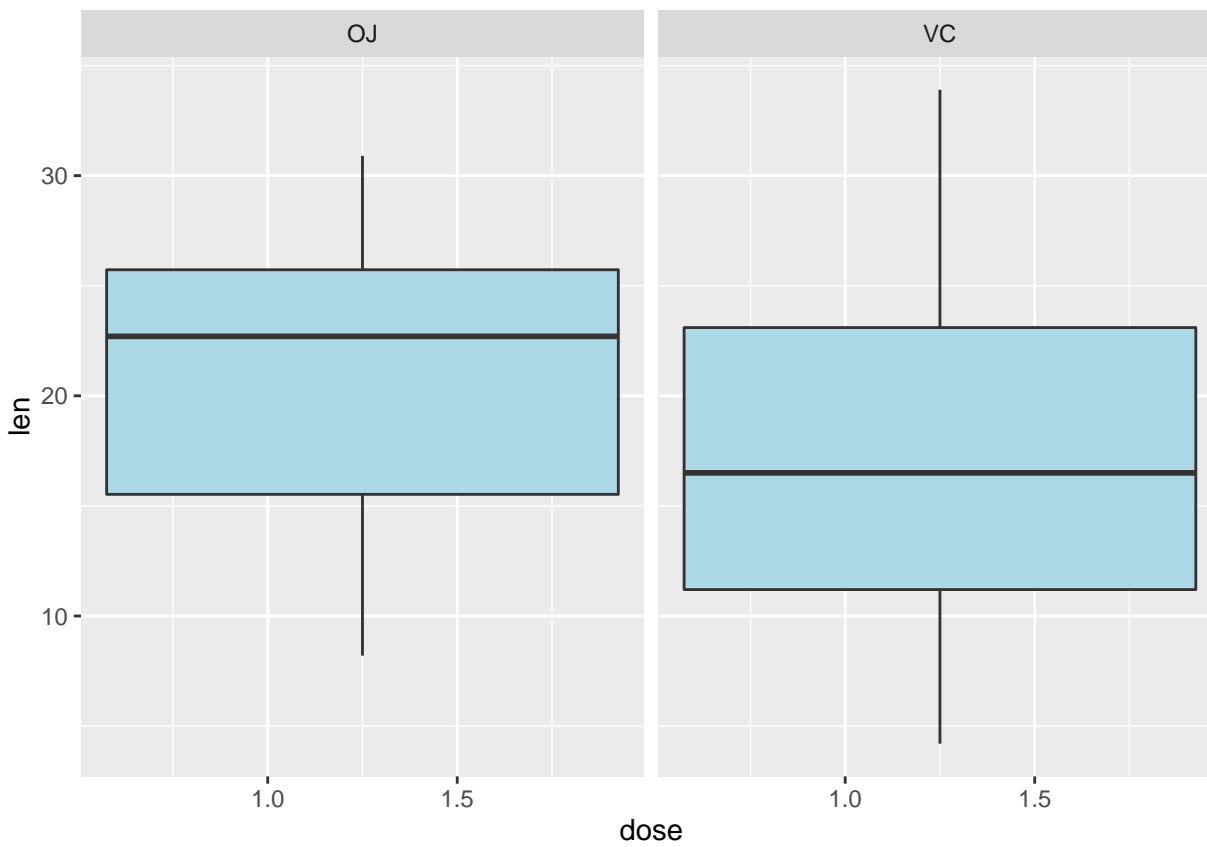
Title: Statistical Inference Course Project: Part 2

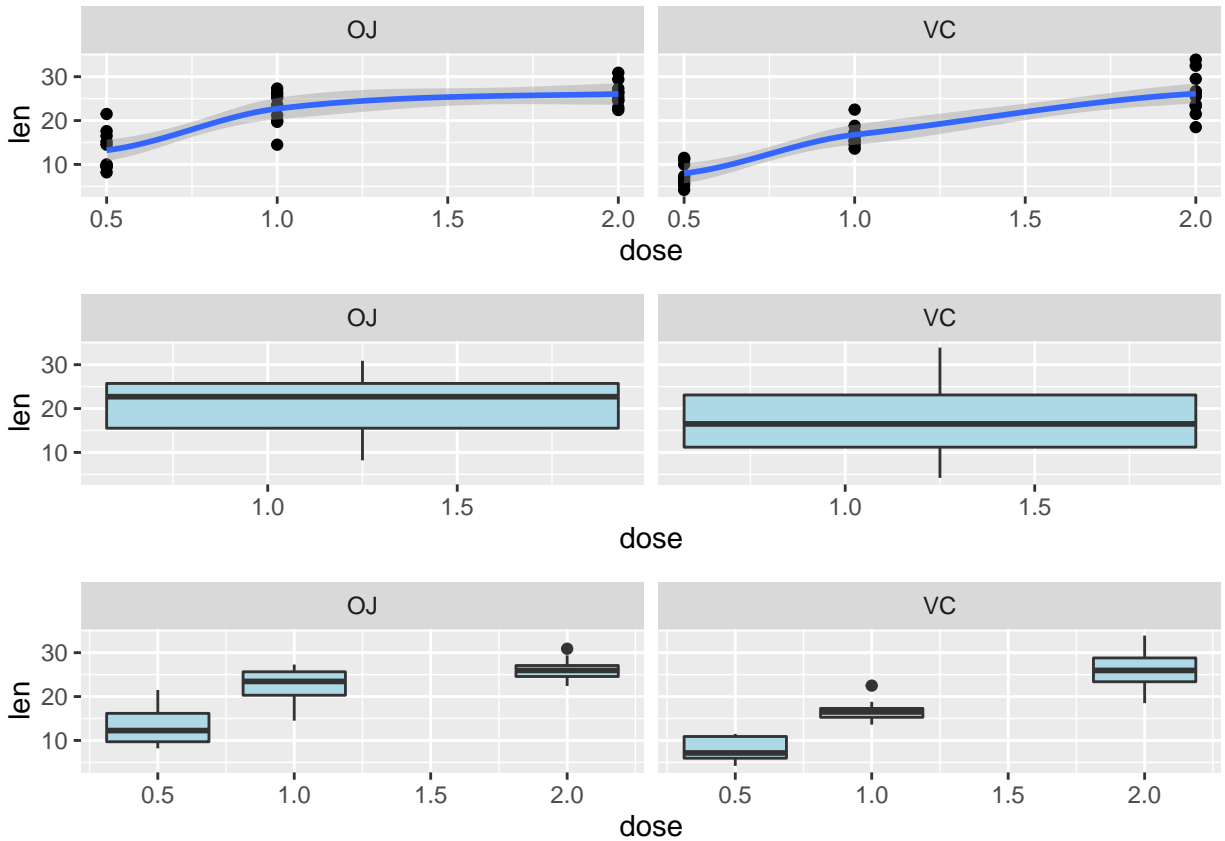
Author: David Brown

The Effect of Vitamin C on Tooth Growth in Guinea Pigs

The response is the length of odontoblasts (cells responsible for tooth growth) in 60 guinea pigs. Each animal received one of three dose levels of vitamin C (0.5, 1, and 2 mg/day) by one of two delivery methods, (orange juice or ascorbic acid (a form of vitamin C and coded as VC)).







```
##
## Paired t-test
##
## data: len by supp
## t = 3.3026, df = 29, p-value = 0.00255
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  1.408659 5.991341
## sample estimates:
## mean of the differences
##                3.7
```

Conclusion:

The charts and T Test show that there is a statistically meaningful difference between the two sample groups. The difference is extreme enough that we wouldn't realistically attribute it to noise.