

## Tooth Growth - Appendix

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This appendix describes the code required to reproduce the analysis in the course project on tooth growth.

```
data(ToothGrowth)
attach(ToothGrowth)
summary(ToothGrowth)
```

Plotting all data

```
boxplot(len~supp*dose,xlab="Dose and Supplement",main="Tooth
Growth",col=c("Red","Blue"))
```

Plotting via supplement

```
boxplot(len~supp,col=c("Red","Blue"),outline = FALSE,xlab="Supplement")
```

Supplement t-test

```
hist(len[supp=="OJ"])
hist(len[supp=="VC"])
var(len[supp=="VC"])/var(len[supp=="OJ"])
t.test(len[supp=="OJ"],len[supp=="VC"],conf.level=0.95,alternative="gre
ater")
```

Plotting via dose

```
boxplot(len~dose,xlab="Dose",col=c("Light Blue","Blue","Dark Blue"))
```

t-tests for dose

```
var(len[dose==0.5])/var(len[dose==2])#assumption checking
t.test(len[dose==1],len[dose==0.5],conf.level=1-
0.05/2,alternative="greater")
t.test(len[dose==2],len[dose==1],conf.level=1-
0.05/2,alternative="greater")
```