See the cool plot below

```
library(ggplot2)
library(plyr)
data(mtcars)
head(mtcars)
```

```
                  mpg cyl disp  hp drat wt qsec vs am gear carb
Mazda RX4          21   6  160 110    4  3   16  0  1    4    4
Mazda RX4 Wag      21   6  160 110    4  3   17  0  1    4    4
Datsun 710         23   4  108  93    4  2   19  1  1    4    1
Hornet 4 Drive     21   6  258 110    3  3   19  1  0    3    1
Hornet Sportabout  19   8  360 175    3  3   17  0  0    3    2
Valiant            18   6  225 105    3  3   20  1  0    3    1
```

```
?mtcars
ggplot(data=mtcars, aes(x=am, y=mpg)) +
       geom_boxplot(aes(group=am, color=factor(am)))
```

Figure 1: Cool plot

```
ls <- lm(mpg~am, data=mtcars)
summary(ls)
```

```

Call:
lm(formula = mpg ~ am, data = mtcars)

Residuals:
   Min     1Q Median     3Q    Max
-9.392 -3.092 -0.297  3.244  9.508

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    17.15       1.12   15.25  1.1e-15
am              7.24       1.76    4.11  0.00029

Residual standard error: 5 on 30 degrees of freedom
Multiple R-squared:  0.36,  Adjusted R-squared:  0.338
F-statistic: 16.9 on 1 and 30 DF,  p-value: 0.000285
```