

Here is my regression model:

```
options(digits = 4)
fit <- lm(regFormula(), data = mtcars)
b <- coef(fit)
summary(fit)
##
## Call:
## lm(formula = regFormula(), data = mtcars)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.981 -2.119  0.222  1.072  7.519
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   37.885      2.074   18.27 < 2e-16 ***
## cyl          -2.876      0.322   -8.92 6.1e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.21 on 30 degrees of freedom
## Multiple R-squared:  0.726, Adjusted R-squared:  0.717
## F-statistic: 79.6 on 1 and 30 DF, p-value: 6.11e-10
```

The fitting result is  $mpg = 37.8846 + -2.8758cyl$ . Below is a scatter plot with the regression line.

```
par(mar = c(4, 4, 1, 1))
plot(regFormula(), data = mtcars, pch = 19, col = 'gray')
abline(fit, col = 'red', lwd = 2)
```

