Great scatter plot

<https://www.r-bloggers.com/scatter-plot-matrices-in-r/>

how to get lm results

https://stat.ethz.ch/pipermail/r-sig-ecology/2008-May/000062.html

[, 1] mpg Miles/(US) gallon

[, 2] cyl Number of cylinders

[, 3] disp Displacement (cu.in.)

[, 4] hp Gross horsepower

[, 5] drat Rear axle ratio

[, 6] wt Weight (1000 lbs)

[, 7] qsec 1/4 mile time

[, 8] vs V/S – v eight vs straight engine

[, 9] am Transmission (0 = automatic, 1 = manual)

[,10] gear Number of forward gears

[,11] carb Number of carburetors

fit3 <- lm(mpg~wt+am,mtcars)

fitwt <- lm(mpg~wt,mtcars)

fitt <- lm(mpg~am,mtcars)

plot(mpg~wt,mtcars,col=mtcars$am,pch=20)

abline()

curve(predict(fitwt,newdata=data.frame(wt=x,am=0)),col="blue",add=T)

curve(predict(fitt,newdata=data.frame(wt=x,am=1)),col="magenta",add=T)

curve(predict(fit3,newdata=data.frame(wt=x,am=0)),col=4,add=T)

curve(predict(fit3,newdata=data.frame(wt=x,am=1)),col=6,add=T)

lmfit <- lm(mpg~wt+cyl,mtcars)

plot(mpg~wt,mtcars,col=mtcars$cyl,pch=20)

curve(predict(lmfit,newdata=data.frame(wt=x,cyl=4)),col=4,add=T)

curve(predict(lmfit,newdata=data.frame(wt=x,cyl=6)),col=6,add=T)

curve(predict(lmfit,newdata=data.frame(wt=x,cyl=8)),col=8,add=T)

## Including Plots

##variance explained

#http://varianceexplained.org/RData/code/code\_lesson3/

#http://stcorp.nl/R\_course/tutorial\_basic\_data\_analysis.html