lec10notes

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*Playing with Org-mode-R:

```
plot(matrix(rnorm(100), ncol=2), type="l")
```

```
library(ascii)
options(asciiType="org")
ascii(summary(table(1:4, 1:4)))
```

```
library(ascii)
a <- runif(100)
c <- "Quantiles of 100 random numbers"
b <- ascii(quantile(a),header=T,include.colnames=T,caption=c)
print(b,type="org")
rm(a,b,c)
```

```
library(ggplot2)
# create factors with value labels
mtcars$gear <- factor(mtcars$gear,levels=c(3,4,5),
        labels=c("3gears","4gears","5gears"))
mtcars$am <- factor(mtcars$am,levels=c(0,1),
```

```
        labels=c("Automatic","Manual"))
mtcars$cyl <- factor(mtcars$cyl,levels=c(4,6,8),
   labels=c("4cyl","6cyl","8cyl"))

# Kernel density plots for mpg
# grouped by number of gears (indicated by color)
qplot(mpg, data=mtcars, geom="density", fill=gear, alpha=I(.5),
   main="Distribution of Gas Milage", xlab="Miles Per Gallon",
   ylab="Density")

if(FALSE){# Scatterplot of mpg vs. hp for each combination of gears and cylinders
# in each facet, transmittion type is represented by shape and color
qplot(hp, mpg, data=mtcars, shape=am, color=am,
   facets=gear~cyl, size=I(3),
   xlab="Horsepower", ylab="Miles per Gallon")

# Separate regressions of mpg on weight for each number of cylinders
qplot(wt, mpg, data=mtcars, geom=c("point", "smooth"),
   method="lm", formula=y~x, color=cyl,
   main="Regression of MPG on Weight",
   xlab="Weight", ylab="Miles per Gallon")

# Boxplots of mpg by number of gears
# observations (points) are overlayed and jittered
qplot(gear, mpg, data=mtcars, geom=c("boxplot", "jitter"),
   fill=gear, main="Mileage by Gear Number",
   xlab="", ylab="Miles per Gallon")}

library(xtable)
x <- rnorm(100)
y <- x + rnorm(100)
xtable(summary(lm(y ~ x)))
```