Commands	Simple examples
Examining data	
`$` access values by variable name	`labike$latitude` or `labike$latitude[10]`
`[ , ]` access values by index	`labike[10,2]` or `labike[10, ]`
`str()` to see the overall structure of the data set	`str(labile)`
`summary()` descriptive statistics, frequencies for type	`summary(labike)` or `summary(labike$type)`
`dim()` see the dimensions of a data set	`dim(labike)`
`length()` see the length of a vector	`length(labike$type)`
`table()` see a summary of a variable or pair of variables	`table(labike$type)` or `table(cdc$gender, cdc$eat_fruit)`
`class()` learn the class of the object in R	`class(cdc)` or `class(cdc$gender)`
`attributes()` see the attributes of an object in R	`attributes(cdc$gender)`
Finding things out about data	
`order()` order a dataset by some variable	`labike[order(labike$bike_count_pm),]`
`mean()` calculate the mean	`mean(labike$bike_count_pm)`
`median()` calculate the mean	`median(labike$bike_count_pm)`
`min()` view the smallest value	`min(labike$bike_count_pm)`
`max()` view the largest value	`max(labike$bike_count_pm)`
Putting things together	
`=` assign something to a variable	`a = 4`
`c()` create a vector	`a = c(1,2,3)` or `b = c(4,5,6)`
`cbind()` column binding	`cbind(a,b)`
`rbind()` row binding	`rbind(a,b)`
Subsetting	
`subset()` subset data	`subset(labike, bike_count_pm>300)`
`==` check if two things are equivalent	`labike[10, 4]=="none"`
`grepl()` creates a logical vector based on a text string	`subset(labike, grepl("bike", labike$type))`
Plots	
`plot()` make a generic plot	`plot(cdc$gender)`
`barplot()` make a barplot	`barplot(table(cdc$gender))`or `barplot(table(cdc$gender, cdc$age))`
`mosaicplot()` make a mosiac plot	`mosaicplot(table(cdc$gender, cdc$eat_fruit))`
`hist()` make a histogram	`hist(cdc$weight)`
`boxplot()` make a boxplot	`boxplot(cdc$weight)` `boxplot(cdc$weight~cdc$gender)`
`abline()` adds a line to an existing plot	`abline(v=mean(cdc$weight, na.rm=TRUE))`

Tips and tricks	Simple examples
Opening data	
To load in csv files click the "Import Dataset" button in the Workspace pane or use `read.csv()`	`labike = read.csv("~/labike.csv")`
To load rda files, click on file name in the Files pane or use `load()`	`load("~/cdc.rda")`
To load robj files, use `dget()` (no dynamic way to do it)	`twitter = dget("NJTwitter.robj")`
Finding help	
1. Your first step should always be to use `help()`	`help(plot)`
2. Then, ask a classmate	"Do you know how to add a title to a plot?"
3. If that doesn't work, try google	"R statistics add title to plot"
4. Finally, email me	`amelia.mcnamara@stat.ucla.edu`
Code completion	
Use the "tab" key to see options for code or variables	
Code history	
Use the "up" arrow to see commands you've previously typed	
Saving a plot	
Click on the "export" button at the top of the Plots pane	
Closing RStudio	
Choose File -> Quit, and I recommend choosing "Don't Save"	