HW1 notes

Emacs

• to start R in emacs (Aquamac Emac has ESS included): M-x R
• to run a line from a script in emacs, C-c C-j; don’t highlight the line!
• to run a highlighted region in emacs, C-c C-r
• to scroll through history in R (in emacs): C-up or C-down; this will not scroll through commands run from within emacs using the above commands

Creating & manipulating objects

Vectors and Matrices

• A vector is created using c(): c(1,2,3,4,5,6) or c(1:6)
• A matrix is created using matrix(c(1,2,3,4,5,6), nrow=2, ncol=3, byrow=TRUE) (default: byrow=FALSE)
• Vectors and matrices are indexed with brackets (not parentheses like in Matlab): x1[3], mat1[row,col]
• For a matrix, mat1[1,] returns the entire row

Other commands

• t() transposes a matrix or vector
• Logical is T and F, not 1 and 0 like in Matlab. However, you can use as.logical() on a vector of 1s and 0s to convert it to logical.
• rep() can only take one dimension (unlinke Matlab’s repmat)
Interactive commands

- `?function` gets help on that function
- `help.search('topic')` searches all help for that topic
- `ls()` is like Matlab's `who` function: lists only the names of objects in the workspace
- `LS()` (capital letters) comes from Matt K's `Rprofile` and is like Matlab's `whos` function: lists all object dimensions (rows), length (columns), names, and classes
- Matt K’s `info` function comes from sourcing his Rprofile:
  - Save this as `/.Rprofile` if you want it for offline access, though I'm not sure why
- `rm(object)` removes an object from the workspace
- `remove(list=ls())` clears the entire workspace.
  
  note that this will remove any functions loaded in by your `.Rprofile` (will need to `source("/Users/matt/.Rprofile")` to get them back). There must be a way around this.
- `q()` quits (or `q('no')`)