Using the Example Environment with **knitr**

Alan's Modifications and Notes

February 17, 2014

1 Introduction

This is a test of the `R` Example environment.

1.1 Simple Arithmetic

R Code 1.1.

```
1 + 1
```

```
[1] 2
```

1.2 Generate Random Data

R Code 1.2.

```
x <- rnorm(1000)
```

Find the standard deviation of `x`.

R Code 1.3.

```
sd(x) # standard deviation
```

```
[1] 0.9728
```

How about `R` Examples 1.2 and 1.3? The standard deviation of `x` is 0.9728.

1.3 Graphs and Environments

R Code 1.4.

```r
junk <- rnorm(10000)
MEAN <- mean(junk)
MEAN
```

```
[1] 0.01513
```

The mean of the junk is 0.0151. Note: It seems that an error is thrown if a code chunk with a graph and `rcode` is executed at the same time. Work around is as shown below. That is, hide the figure when showing the code...then show the figure with a separate code chunk. Note that Figure 1 is hyperlinked!

R Code 1.5.

```r
library(ggplot2)
ggplot(data = mtcars) +
  geom_density(aes(x = mpg), fill = "pink") +
  theme_bw() +
  labs(x = "miles per gallon", y = "")
```
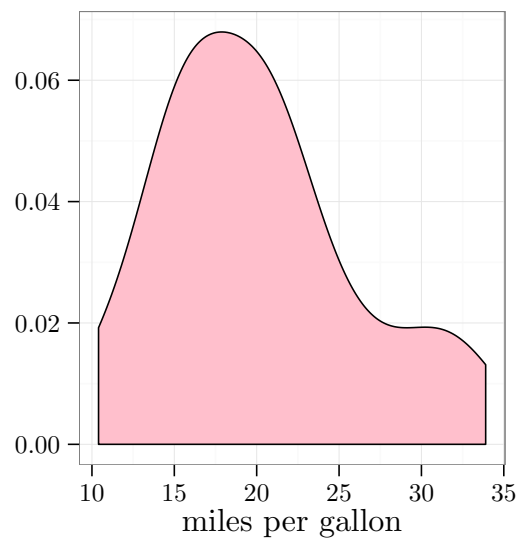

Figure 1: This is where you explain your graph

When working with OSX, one may want to change `engine = 'sh'` to `engine = 'bash'`.

GIT Example 1.1.

```
git config --list

user.name=Alan Arnholt
user.email=arnholtat@appstate.edu
credential.helper=osxkeychain
color.ui=true
core.repositoryformatversion=0
core.filemode=true
core.bare=false
core.logallrefupdates=true
core.ignorecase=true
core.precomposeunicode=false
remote.origin.url=https://github.com/alanarnholt/STT4870.git
remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
branch.master.remote=origin
branch.master.merge=refs/heads/master
```

Look at R Code 1.1 to add $1 + 1$ and get the answer 2.