5-Homework Using `dplyr` and `ggplot2`
BIOL 5000

You will need these libraries:

```r
library(ggplot2)
library(dplyr)
```

You will need this data:

```r
data(msleep)
```

Question 1. Use `dplyr` to recreate the summary table below using the `msleep` dataset (built into ggplot). You will need to use several of the `dplyr` verbs (functions) we have learned in class.

```
## # A tibble: 17 x 5
##    name                          order    brainwt bodywt   ratio
##    <chr>                         <chr>      <dbl>  <dbl>   <dbl>
##  1 Jaguar                        Carnivora 0.157   100     0.00157
##  2 Gray seal                     Carnivora 0.325   85      0.00382
##  3 Dog                           Carnivora 0.07    14      0.005
##  4 Red fox                       Carnivora 0.0504   4.23   0.0119
##  5 Arctic fox                    Carnivora 0.0445   3.38   0.0132
##  6 Domestic cat                  Carnivora 0.0256   3.3    0.00776
##  7 Genet                         Carnivora 0.0175   2      0.00875
##  8 African giant pouched rat     Rodentia  0.0066   1      0.0066
##  9 Arctic ground squirrel        Rodentia  0.0057   0.92   0.00620
## 10 Guinea pig                    Rodentia  0.0055   0.728  0.00755
## 11 Chinchilla                    Rodentia  0.0064   0.42   0.0152
## 12 Laboratory rat                Rodentia  0.0019   0.32   0.00594
## 13 Cotton rat                    Rodentia  0.00118  0.148  0.00797
## 14 Mole rat                      Rodentia  0.003    0.122  0.0246
## 15 Golden hamster                Rodentia  0.001    0.12   0.00833
## 16 Thirteen-lined ground squirrel Rodentia 0.004    0.101  0.0396
## 17 House mouse                   Rodentia  0.0004   0.022  0.0182
```

Question 2. Use a t-test to compare the two mammal orders, Rodentia and Carnivora, in their ratio of brain weight to body weight.

Question 3. Using `ggplot2`, replicate the following figure. Fill in the values from your t-test (Question 2).
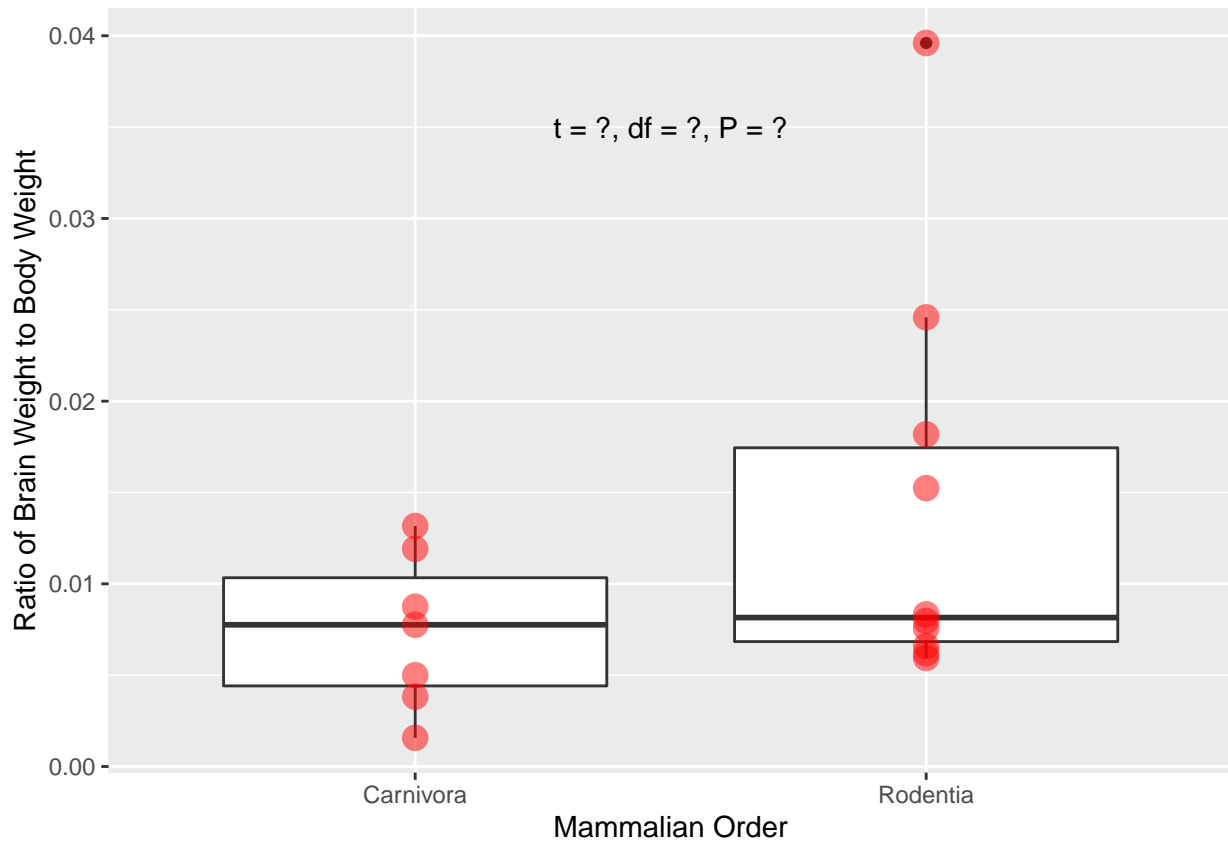
Question 4. Save the plot to your Rproject folder for this exercise as a 6" X 6" .jpg file.

Homework (Folder containing .rproj file and all associated input/output files) is due to the D2L Assignments dropbox **before class on November 4th**. As before, make each of your 'answers' an object. (e.g.) Answer_3 <- ggplot(data_summary, aes(x = ... and 'print' the name of the object below the specified code (e.g. Answer_3). Each then shows up automatically in the console (if a model or table) or plot viewer (if its a graph) without having to click on anything.