Lab 11

Name here

For this question, we will use classical t-tests and Bayesian analogues.

1. Use the OK Cupid dataset and test the following claim, the mean height OK Cupid respondents reporting their body type as `athletic` is different than 70 inches.

```
library(tidyverse)
okc <- read.csv('http://www.math.montana.edu/ahoegh/teaching/stat408/datasets/OKCupid_profiles_clean.csv
okc.athletic <- okc %>% filter(body_type == 'athletic')
```

a. (4 points)

Use a t-test `t.test()` to answer this research question. Print statistical output **AND** summarize your results in writing.

b. (8 points)

Use a Bayesian t-test (specified in JAGS) to answer this research question. Assume that your ROPE is 1/4 inch. Print statistical output, create a data visualization, **AND** summarize your results in writing.

2. Now consider whether there is a height difference between OK Cupid respondents self-reporting their body type as "athletic" and those self-reporting their body type as "fit"

```
okc.fit <- okc %>% filter(body_type == 'fit')
```

a. (4 points)

Use a t-test `t.test()` to answer this research question. Print statistical output **AND** summarize your results in writing.

b. (8 points)

Use a Bayesian t-test (specified in JAGS) to answer this research question. Assume that your ROPE is 1/4 inch. Print statistical output, create a data visualization, **AND** summarize your results in writing.