Name_____ Date_____

LAB 2I: R's Normal Distribution Alphabet
Response Sheet

Directions: Record your responses to the lab questions in the spaces provided.

Where we're headed

Get set up

Is it normal?

- **Is the distribution close to normal? Explain how you determined this. Describe the center and spread of the distribution.**

- **Compute the mean difference in the age of the *actual* survivors and the actual non-survivors.**

Using the normal model

- **Draw a sketch of a normal curve. Label the mean age difference, based on your shuffles, and the actual age difference of survivors minus non-survivors from the actual data. Then, shade in the area, under normal the curve, that is *smaller* than the actual difference.**

Name_____ Date_____

LAB 2I: R's Normal Distribution Alphabet
Response Sheet

Extreme probabilities

Simulating normal draws

P's and Q's

On your own

- **Were women on the Titanic typically younger than men?**
- **Use a histogram, 500 random shuffles and a normal model to justify your answer.**

- **Using 500 random shuffles and a normal model, how much taller would the typical male have to be than the typical female in order for the difference to be in the upper 1% by chance alone.**

- **How can we use this value to justify the claim that the average Male in our data is taller than the average Female?**