

Name _____

Date _____

LAB 2C: Which song plays next? Response Sheet

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

A new direction

Estimate what ... ?

- **Why do we *put a song back* each time we make a selection?**

- **What would happen in our little experiment if we did not do this?**

Calculating probabilities

Estimating probabilities

Getting ready

- **Use a similar line of code to simulate the rock songs in our playlist of 100.**

Put the songs in the playlist

Pick a song, any song

- **Once everyone in your class has computed their *proportions*, calculate the *range of proportions* (the largest *proportion* minus the smallest *proportion*) for your class and write it down.**

Now do() it some more

- **What is the variable name?**

Name _____

Date _____

LAB 2C: Which song plays next? *Response Sheet*

- Compute the proportion of "rap" songs for your 50 draws and find out if the *range* for your class' proportions is bigger or smaller than when we drew 10 songs.

Proportions vs. Probability

Non-random Randomness

Playing with seeds

- Are the proportions still the same? If so, can you find two different values for `set.seed` that give different answers?

On your own

- Answer this by estimating the probability that a randomly chosen student went to the movies using 500 simulations.
 - Write down both the estimated probability and the code you used to compute your estimate. You might find it helpful to write your answer in an R Script (*File -> New File -> R Script*)
 - Include `set.seed(123)` in your code before you do 500 repeated samples.