

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

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

Proportions vs. Probability

Non-random Randomness

Playing with seeds

- What value of `set.seed` did you and your partner use and what was the proportion of "rap" songs you obtained?

Name_____

Date_____

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- 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*).