

Name: _____ (as clearly as you can write it)

Worksheet 2

Interpreting Simulation Results:

- Question: You run a Monte Carlo simulation 10,000 times to estimate the amount of genetic variation you expect to see in a gene given the demographic history of a population that you have sampled. Each simulation provides you with a sample of simulated genomes and you calculate mean pairwise divergence among all samples in each Monte Carlo simulation. How you would use these results to understand your data?

Understanding Simulation Accuracy:

- Question: Explain how the number of Monte Carlo simulations you do can affect the accuracy of inference. What is the minimum number of Monte Carlo simulations you would find acceptable?

Application of Monte Carlo Methods:

- Question: Describe a real-world scenario where a Monte Carlo simulation could be useful. Outline how you would set up the simulation, including the random variables involved and the way you would interpret the results.