



Random Sampling Inferences

Today's Standard

7.SP.A2 - Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.

Cues	Notes
What is a random sample?	A random sample is a subset of a population where each member has an equal chance of being selected.
Why are multiple samples important?	Multiple samples help to reduce bias and provide a more accurate representation of the population.
What is variation in estimates?	Variation in estimates refers to the differences in results when multiple samples are taken. It helps gauge the reliability of predictions.
How can we use random samples in real life?	Random samples can be used in various real-life scenarios, such as predicting election results, estimating average heights, or determining average study hours.

Summary

Using random samples helps in making accurate inferences about a population. Multiple samples reduce bias and show variation, which is crucial for reliable predictions.