Two-Way Frequency Tables and Conditional Probability

Today's Standard

HSS.CP.A4 - Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.

Cues	Notes
What is a two-way frequency table?	A two-way frequency table displays the frequency of data points for two categorical variables.
How do you determine if events are independent?	To determine if events are independent, compare the probability of the events occurring together to the product of their individual probabilities.
What is conditional probability?	Conditional probability is the probability of an event occurring given that another event has already occurred.

Summary

Two-way frequency tables help analyze the relationship between two categorical variables. Understanding independence and conditional probability is crucial for interpreting these tables and making data-driven decisions.