Probability Models from Data

Today's Standard

7.SP.C7b - Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?

Real-World Applications for this Standard

Calculating the likelihood of different outcomes in games of chance; Predicting weather patterns based on historical data; Estimating the success rate of a new product based on market tests; Determining the probability of genetic traits in offspring; Analyzing sports statistics to predict game outcomes

Today I Learned

Today, we learned about creating probability models by looking at how often things happen. For example, we can see how many times a coin lands on heads or tails.

Common Stumbling Blocks

Sometimes, kids think all chances are the same, but that's not true. Also, they might think a few tries are enough to know the chances, but we need more tries to be sure.

Quiz Me

- What is a probability model?

- How do you make a probability model?

- Can all outcomes have different chances?

- Why do we need to try many times?

- What can we use probability models for?

Help Me

Probability models help us guess what might happen based on what we see. For example, we can guess the weather or how well a team will do in a game.