



Expected Value Calculation

Today's Standard

HSS.MD.A2 - (+) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.

Cues	Notes
What is expected value?	Expected value is the mean of a probability distribution.
How to calculate expected value?	Calculate expected value by multiplying each outcome by its probability and summing the results.
Common misconceptions about expected value	Misconception: Expected value is an actual outcome. Misconception: Expected value is the most likely outcome.
Real-world applications of expected value	Applications: Gambling, insurance, stock market, business risk, standardized tests.

Summary

Expected value represents the mean of a probability distribution and is calculated by summing the products of each outcome and its probability. It is a theoretical average, not necessarily an actual or most likely outcome, with applications in various real-world scenarios.