Normal Distribution and Population Estimates

Today's Standard

HSS.ID.A4 - Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

Cues	Notes
Normal Distribution	Normal distribution is a bell-shaped curve representing the distribution of data points.
Mean and Standard Deviation	Mean is the average of data points; standard deviation measures data spread.
Estimating Population Percentages	Use mean and standard deviation to fit data to a normal curve and estimate population percentages.
Appropriateness of Normal Model	Not all data sets fit a normal distribution; check data shape first.
Using Technology for Data Analysis	Calculators, spreadsheets, and tables help estimate areas under the normal curve.

Summary

Understanding and using normal distribution involves fitting data using mean and standard deviation, recognizing when this model is appropriate, and utilizing technology to aid in analysis.