



Algebra II Pacing & Assessment Guide

JMCSS DEPARTMENT OF CURRICULUM & INSTRUCTION

Unit VII – Statistics

Description: Drawing correct conclusions from data is highly dependent on how the data are collected. In particular, "cause and effect" conclusions can only arise from properly conducted experiments, in which the researcher actively imposes a treatment. In this unit students study design of experiments based on three fundamental principles: control of outside variables, randomization, and replication within the experiment. This unit is an introduction to these and other key issues in experimental design. Student learn to use probability, relative frequencies, and discrete distributions to develop a conceptual understanding of the normal distribution and use the distribution to estimate population proportions.

Domain	Tennessee State Standards	Assessed on TNReady	
		Part I	Part II
Understand and Evaluate Random Processes Underlying Statistical Experiments (IC.A)	S-IC.A.1. Understand statistics as a process for making inferences about population parameters based on a random sample from that population.	X	
	S-IC.A.2. Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?	X	
Make Inferences and Justify Conclusions from Sample Surveys, Experiments, and Observational Studies (IC.B)	S-IC.B.3. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.	X	
	S-IC.B.4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling. 5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.	X	
	S-IC.B.5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.	X	
	S-IC.B.6. Evaluate reports based on data.	X	
Summarize, Represent, and Interpret Data on a Single Count or Measurement Variable (ID.A)	S-ID.A.4. 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.		X