Unit 05 - Confidence Intervals and Hypothesis Testing

Content Area: **Math**
Course(s): **Prob/Stat A**
Time Period: **Semester 2**
Length: **7 weeks**
Status: **Published**

Unit Introduction

Standards

MA.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.
MA.S-ID.B.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

Essential Questions

Content

- Lesson 1 - Confidence Intervals
- Lesson 2 - Hypothesis Testing

Skills

- Check assumptions for confidence intervals and significance tests
- Conduct significance tests.
- Determine the minimum sample size for finding a confidence interval for the mean.
- Find confidence interval for the mean when population standard deviation is known or n is greater or equal to 30.
- Find critical values for the z test
- Sate the five steps used in hypothesis testing
- State the null and alternative hypothesis
- Test means for large samples, using the z test
- Understand the definitions used in hypothesis testing