

Unit 07 - Confidence Intervals and Sample Size

Content Area: **Math**
Course(s): **Prob/Stat A**
Time Period: **Marking Period 3**
Length: **5 weeks**
Status: **Published**

Unit Introduction

Standards

MA.S-IC.A.2	Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation.
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.A.1	Represent data with plots on the real number line (dot plots, histograms, and box plots).

Essential Questions

Content

- Section 7.1: Introduction (Pgs. 348-349)
- Section 7.2: Confidence Intervals for the Mean and Sample Size (Pgs. 349-357)
- Section 7.3: Confidence Intervals for the Mean (Pgs. 362-369)
- Section 7.4: Confidence Intervals and Sample Size for Proportions (Pgs. 369-373)
- Section 7.5: Confidence Intervals for Variances and Standard Deviation (Pgs. 377-381)

Skills

- Check assumptions for confidence intervals and significance tests
- Conduct significance tests.
- Determine the minimum sample size for finding a confidence interval for a proportion.
- 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 confidence interval for the mean when population standard deviation is unknown and $n < 30$.
- Find the confidence interval for a proportion.
- Find the confidence interval for a variance and standard deviation.

