

Unit 08 - Hypothesis Testing

Content Area: **Math**
Course(s): **Prob/Stat A**
Time Period: **Marking Period 4**
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.5	Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.

Essential Questions

Content

- Section 8.1: Introduction (Pgs. 392-393)
- Section 8.2: Steps in Hypothesis Testing-Traditional Method (Pgs. 393-404)
- Section 8.3: z Test for a Mean (Pgs. 405-413)
- Section 8.4: t Test for a Mean (Pgs. 419-428)
- Section 8.5: z Test for a Proportion (Pgs. 429-435)
- Section 8.6: Chi Square Test for a Variance or Standard Deviation (Pgs. 437-449)

Skills

- Explain the relationship between type I and type II errors and the power of a test.
- Find critical values for the z test
- State the five steps used in hypothesis testing
- State the null and alternative hypotheses
- Test means for large samples, using the z test.
- Test means for small samples, using the t test.
- Test proportions, using the z test.
- Test variances or standard deviations, using the chi square test.

- Understand the definitions used in hypothesis testing