

# Unit #5: 2+ Sample Hypothesis Testing

Content Area: **Mathematics**  
Course(s): **Statistics H**  
Time Period: **Semester 1 & 2**  
Length: **4 weeks**  
Status: **Published**

## Standards

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MA.K-12.3	Construct viable arguments and critique the reasoning of others.
MA.S-IC.A.1	Understand statistics as a process for making inferences about population parameters based on a random sample from that population.
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-IC.B.5	Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.

## Enduring Understandings

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- 1) Recognizing that while certain computations of hypothesis tests involving more than one sample may differ, the overall format always remains the same.
- 2) Understanding how, and when Analysis of Variance hypothesis testing is used.

## Essential Questions

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- 1) Will students be able to differentiate between and perform hypothesis tests involving 2 or more samples of means, proportions, standard deviations, or variances?
- 2) Will students be able to determine when to use 1 or 2-way Analysis of Variance?

## Knowledge and Skills

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- 1) Students will perform hypothesis tests comparing two standard deviations, variances, means, and proportions
- 2) Recognize the differences between and calculate 1 and 2-way Analysis of Variance tests when comparing more than two means

## Resources

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### **Elementary Statistics 10th Edition**

<https://doralacademyprep.enschool.org/ourpages/auto/2015/8/18/48840047/Elementary%20Statistics%2010e.pdf>