Boost

STATISTICS
A SUBJECT COLLECTION

OUR MISSION

At Boost, our mission is to ensure no student loses motivation or leaves education because they were unable to access effective, relevant tutorial support when they needed it the most.

WHAT WE DO

Boost offers curated collections of short, topic level videos designed to mimic a private tutor experience. Our learning pathways improve student outcomes when used as an independent study resource, course prerequisite, exam preparation, or virtual tutor. Learning pathways can be customised to university or department curricula to ensure students get the information they need to succeed.

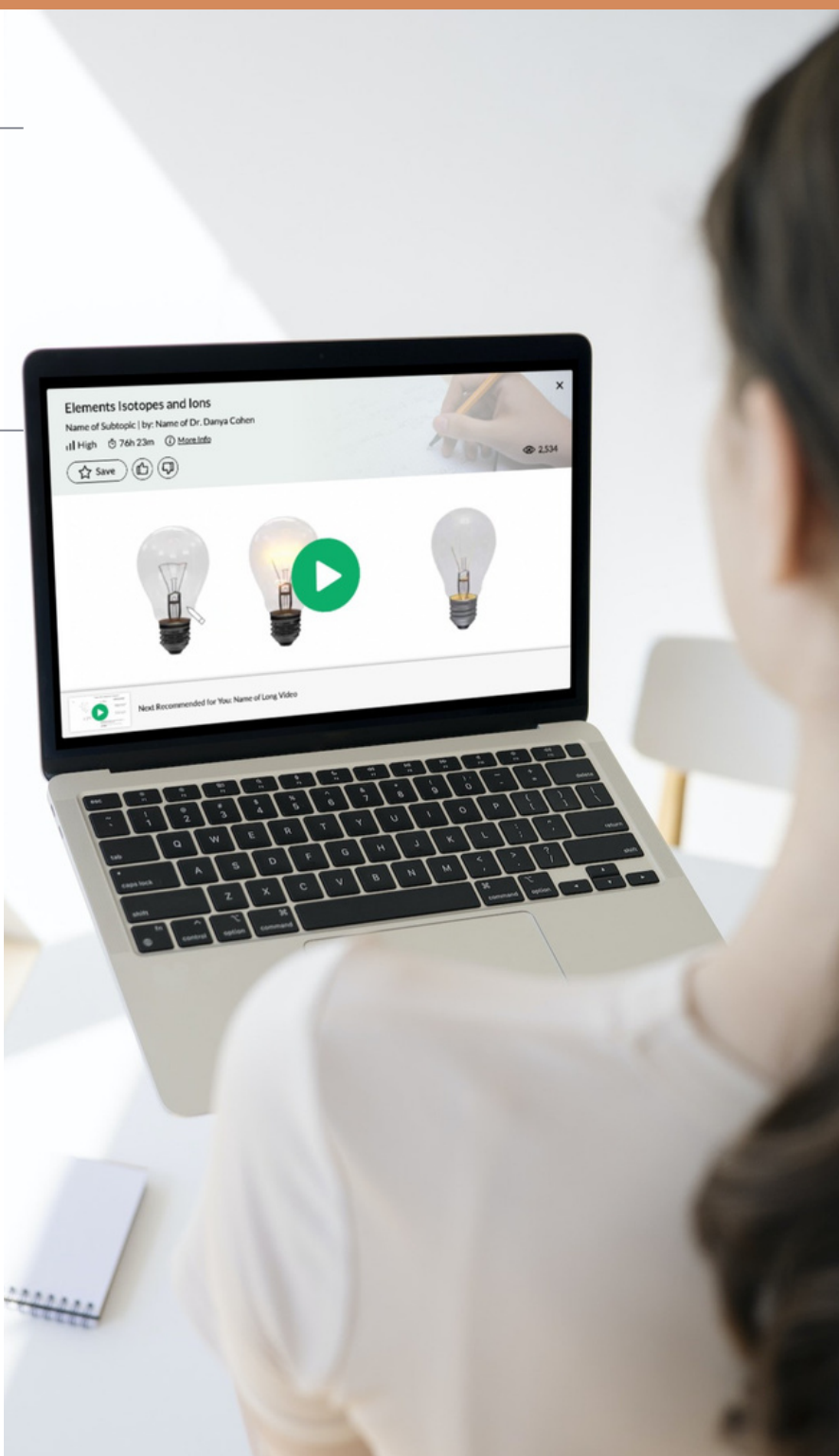
COLLECTION STATS

451
Videos

201
Assessment Questions

35
Hours

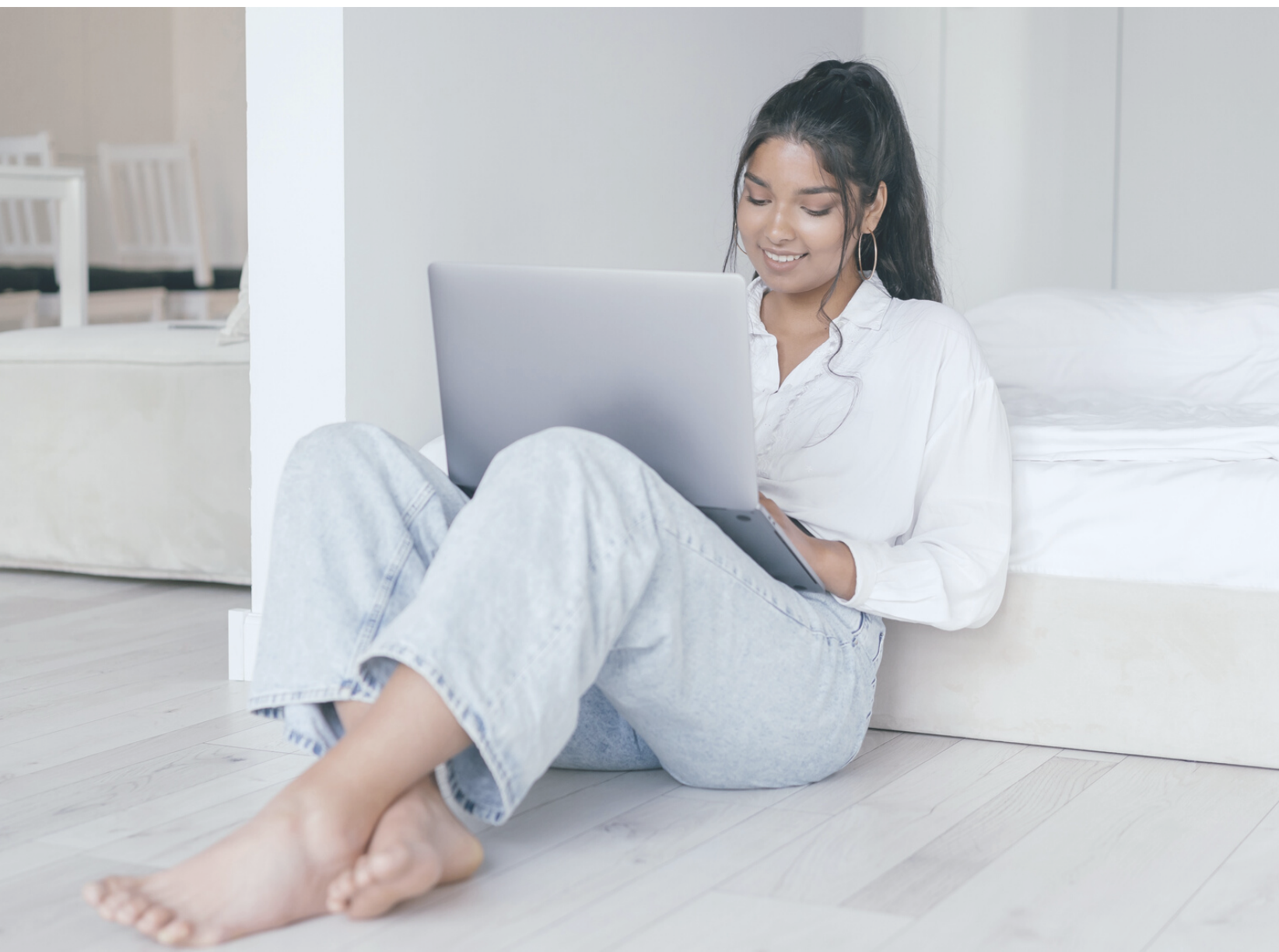
103
Learning Objectives



TOPIC	SUBTOPIC
Descriptive Statistics	Introduction
	Categorization of Variables and Measuring Scales
	Summation
	Measure of Central Tendency
	Measures of Dispersion - Range, Variance, and Standard Deviation
	Measures of Dispersion - Interquartile Range
	Data Presentation
	Box Plots
	Weighted Average and Combined Variance
	Coefficient of Variation
	Analysis of Printout
Data Distributions and Random Variables	Transformations of Measuring Scales
	Measures of Relative Location - Standard Score
	Measures of Relative Location - Percentiles in Categories
	Percentiles in a Discrete Frequencies Table
	Linear Transformations

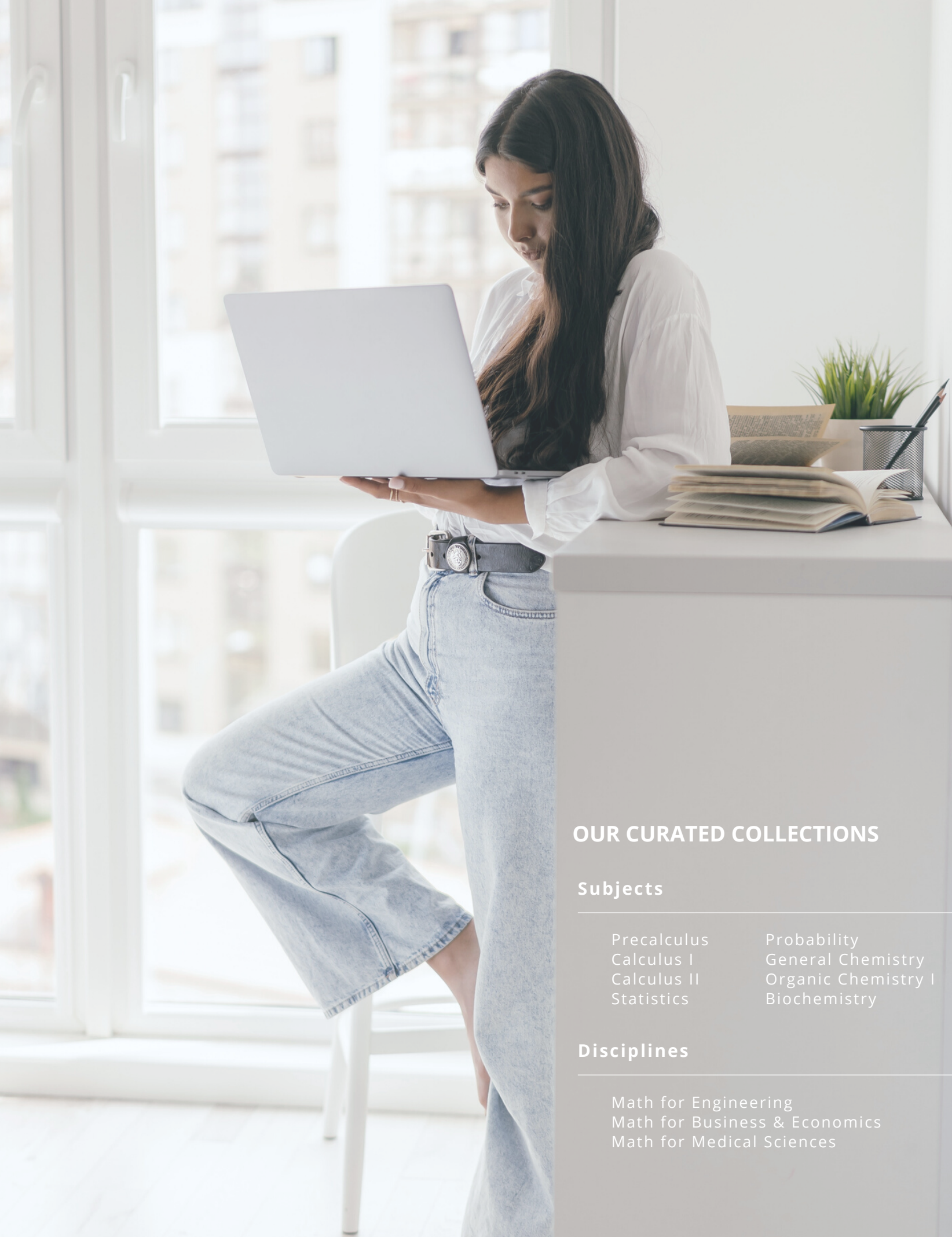
"BOOST PROVIDES ACCESSIBLE AND EFFECTIVE LEARNING RESOURCES WHICH ARE HIGHLY USEFUL AS A SUPPORT FOR MIXED-ABILITY COHORTS OF STUDENTS."

Dr. Gilad Livine
Professor of Accounting & Finance
University of Bristol



TOPIC	SUBTOPIC
Data Distributions and Random Variables	The Probability Function
	Expectation, Variance, and Standard Deviation
	Normal Probability
Introduction to Sampling	Sampling Techniques
	Statistics and Parameters
Sampling Distributions	Properties of Sampling Distributions and Central Limit Theorem
Confidence Intervals for Sample Means	The Big Idea
	Known Population Variance
	Unknown Population Variance
Confidence Intervals for Single Proportions	Constructing Confidence Intervals
	Determining Sample Size
Confidence Intervals for Comparing Two Proportions	Confidence Intervals for Comparing Two Proportions
Confidence Intervals for Comparing Two Sample Means	Confidence Intervals for Comparing Two Sample Means
Hypothesis Testing and Errors	The Idea of Hypothesis Testing
	Errors
Hypothesis Testing about a Mean	Known Variance

TOPIC	SUBTOPIC
Hypothesis Testing about a Mean	Unknown Variance
Hypothesis Testing about a Proportion	Hypothesis Testing about a Proportion
Hypothesis Testing to Compare Proportions	Hypothesis Testing to Compare Proportions
Hypothesis Testing about Difference between Means	Known Population Variances
	Unknown Population Variances with Large Samples
	Unknown Population Variances with Small Samples
Hypothesis Testing about Paired Means	Hypothesis Testing about Paired Means
Chi-Square Tests	Chi Square Test for Goodness of Fit
	Chi Square Test of Independence
Regression and Measures of Association	Linear Measure of Association (Pearson)
	Effect of Linear Transformation on Pearson Measure of Association
	Linear Regression
	Regression - Explained and Unexplained Variance
	Cramer's Measure of Association
	The Phi Measure of Association
	Lamda Measure of Association
	Spearman Measure of Association
	Eta Measure of Association
Further Statistics Practice - Multiple Choice Exercises	Multiple Choice Exercises
Further Statistics Practice - Statement Exercises	Statement Exercises



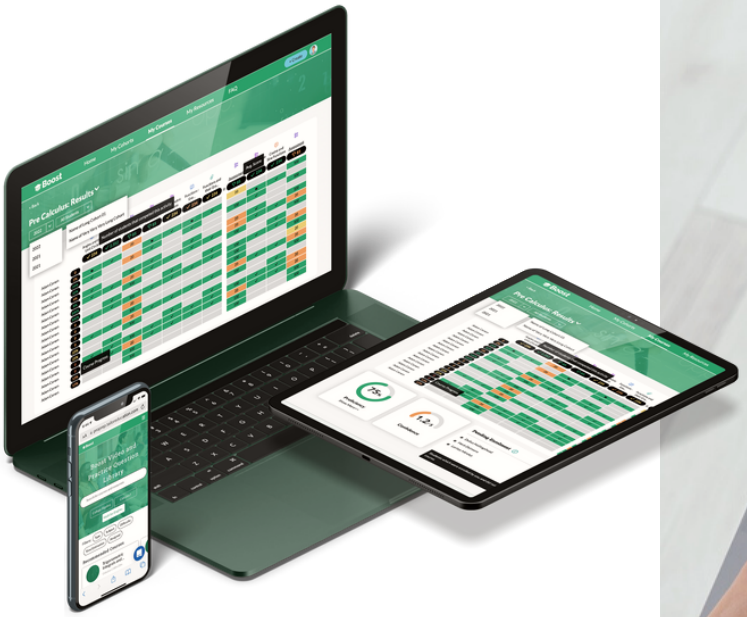
OUR CURATED COLLECTIONS

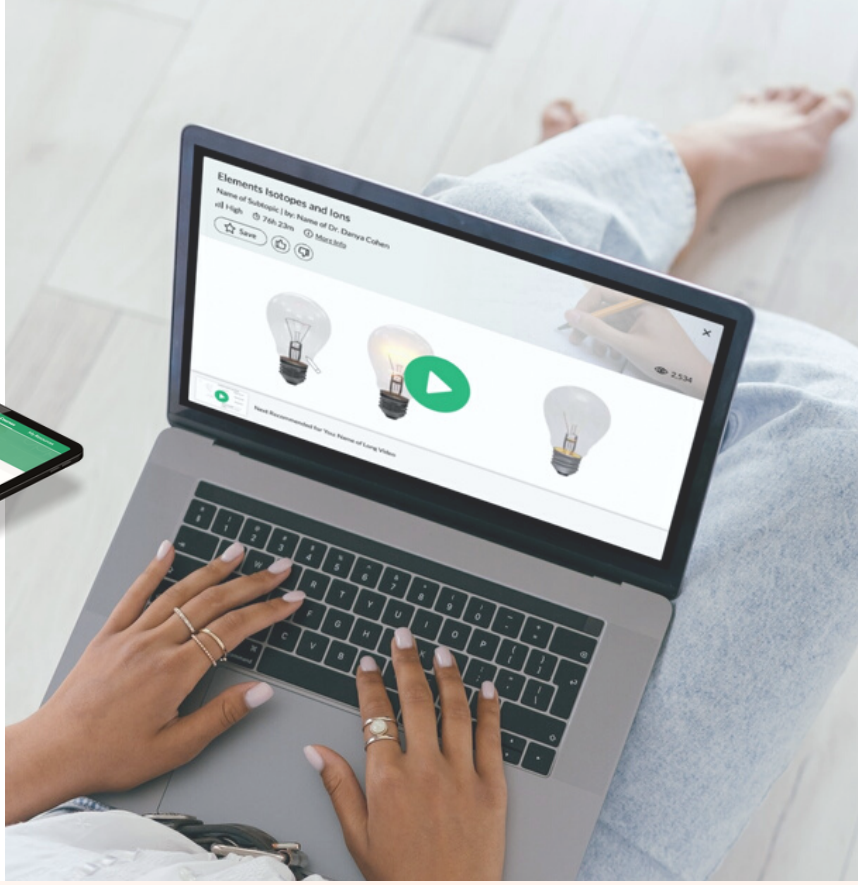
Subjects

- Precalculus
- Calculus I
- Calculus II
- Statistics
- Probability
- General Chemistry
- Organic Chemistry I
- Biochemistry

Disciplines

- Math for Engineering
- Math for Business & Economics
- Math for Medical Sciences





Content

- Bite-sized video tutorials help student learn at their own pace
- Step-by-step practice videos improve learning outcomes and practical understanding
- Curated courses may be assigned by instructors or taken by students independently
- Assessments measure student progress
- Customizable courses may be edited to suit the needs of specific learners

Flexibility

- Database of tutorial and practice videos provide students a boost in foundational math topics
- Flexible teaching resources for blended learning models
- Collection of curated online courses for use in blended learning or as prerequisites
- Editing tool to create and customize courses that meet your learners' needs

Technology

- Assign curated course playlists and assessments to your learners
- Track progress of your learners with live metrics and data visualization
- Create original courses from our library of over 5,000 videos and 1,700 questions
- Upload your own content to customize any course
- Search and save videos from the content library for future viewing

OUR COURSE FLOW

Theory Video

Students begin their journey by watching an initial Theory Video

→

Assessment Question 1

Students test their understanding and receive immediate feedback

→

Exercise Video 1

Students watch step-by-step, how to solve the assessment question so that incorrect answers receive both correction and an explanation

→

Assessment Question 2

Questions increase difficulty to push students further in their learning

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Exercise Video 2

Step-by-step guided solutions reinforce concepts for correct answers, improving true understanding and confidence