



PRECALCULUS

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



866

Videos



316

Assessment Questions



100

Hours



85

Learning Objectives



TOPIC	SUBTOPIC
Introduction to Algebra	Arithmetic
	Fractions
	Algebraic Expressions
	Special Binomial Products
	Complex Numbers
	Rational Expressions
Equations	Introduction
	Linear Equations - One Variable
	Linear Equations - Zero or Infinite Solutions
	Variable in the Denominator
	Systems of Two Linear Equations
	Linear Systems - Zero or Infinite Solutions
	Applications of Linear Equations
	Quadratic Equations
	Jumbled Quadratics
	Quadratics in Disguise
	Nonlinear Equations
	Equations with Square Roots
	Equations with Absolute Value
Inequalities	Linear Inequalities
	Polynomial Inequalities
	Rational Inequalities
	Absolute Value Inequalities

” 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
Graphing and Functions	The Concept of a Function
	The Linear Function - Lines and Circles
	The Quadratic Function - Parabola
	Common Functions
	Translation and Reflection of Functions
	Composed Functions
	Even and Odd Functions
	One to One Functions
	The Inverse Function
	Piecewise Defined Functions
	The Absolute Value Function
	The Domain of Definition of a Function
Polynomial and Rational Functions	Polynomial Division
	Roots / Zeros of Polynomials
	Partial Fractions
	Rationals
	End Behavior of Polynomial Functions
	Graphing Rational Functions
	Exponents
	Exponential Equations - Same Base
	Exponential Equations - Substitution
	Scientific Notation
Logarithms, Logarithmic Equations, Applications	Exponential Growth and Decay

TOPIC	SUBTOPIC
Logarithms, Logarithmic Equations, Applications	Applications - Decay and Growth - Version 2
	Rules of Logarithms
	Exponential Equations - Revisited
	Logarithmic Equations - Type 1
	Logarithmic Equations - Type 2
	Logarithmic Equations - Type 3
	Logarithmic Equations - Type 4
Solving Systems Using Matrices	Systems of Linear Equations
Sequences and Series	Introduction to Sequences
	Arithmetic Sequences
	Geometric Sequences
	Infinite Geometric Series
	Recursive Definitions of Sequences
Binomial Expansion	Binomial Expansion
Trigonometry	Trigonometric Functions
	Trigonometric Equations
	Trigonometric Identities
	Triangles
	Periodic Function
	Inverse Trigonometric Functions
	Graphs of Trigonometric Functions
	Angles
	Advanced Trigonometric Identities



OUR CURATED COLLECTIONS

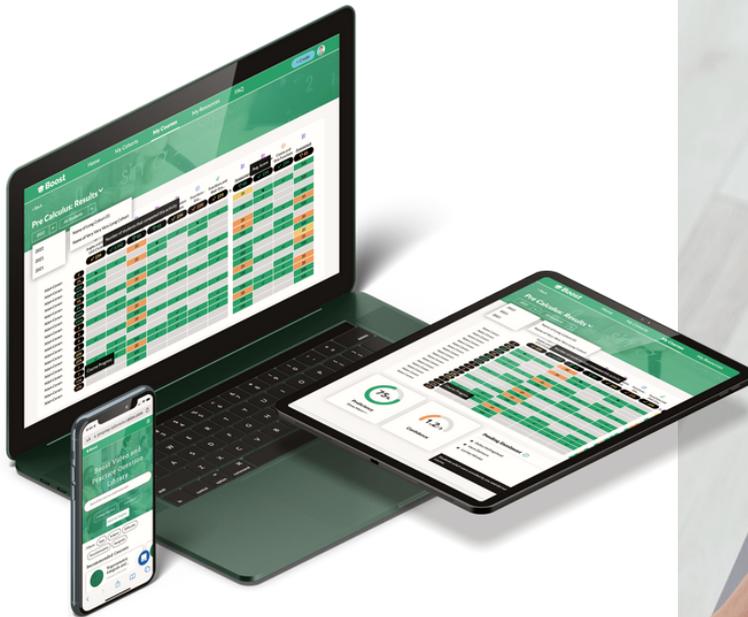
Subjects

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

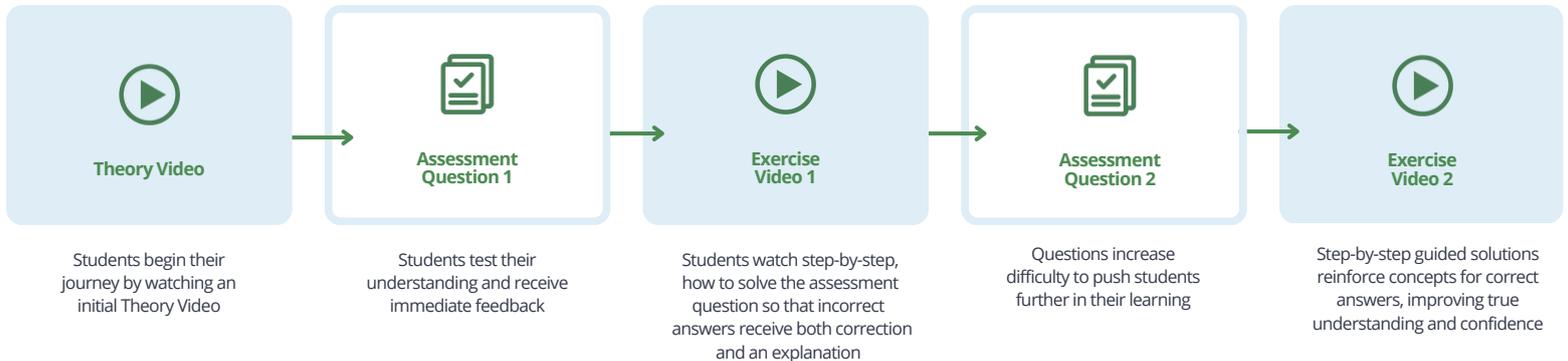
- ✓ Database of tutorial and practice videos provide students a boost in foundational math topics
- ✓ Flexible teaching resources for blended learning models
- ✓ Collection of curated online courses for use in blended learning or as prerequisites
- ✓ Editing tool to create and customize courses that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





Learn more at boost-proprep.com