Boost

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

408
Videos

182
Assessment Questions

57
Hours

56
Learning Objectives

TOPIC	SUBTOPIC
Applications of the Definite Integral - Area and Curve Length	Areas
	Curve Length
	Work
	Center of Mass
	Hydrostatic Pressure and Force
	Probability
	Mean Value Theorem for Integrals
	Average Function Value
	Numerical Integration
	Volume - Solids of Revolution
	Volume by Integrating Cross Sections
	Surface Area - Solids of Revolution
Improper Integrals	Improper Integrals
Ordinary Differential Equations	Introduction to ODE
	Separation of Variables
	Homogeneous Equations
	Linear Equations of the 1st Order
	ODE Word Problems
Parametric Equations	Parametric Equations and Curves
	Tangents with Parametric Equations
	Area with Parametric Equations
	Surface Area with Parametric Equations
	Curve Length with Parametric Equations
Polar Coordinates	Introduction to Polar Coordinates
	Conversion between Polar and Cartesian Coordinates
	Tangent Lines in Polar Coordinates

TOPIC	SUBTOPIC
Polar Coordinates	Area in Polar Coordinates
	Arc Length in Polar Coordinates
	Surface Area in Polar Coordinates
Sequences	Introduction to Sequences
	Convergence of a Sequence, Monotone Sequences
	Cauchy Criterion, Bolzano - Weierstrass Theorem
	Sequence with No Limit
Infinite Series	Infinite Geometric Series
	The Harmonic Series and The P-Series
	Algebraic Properties of Series
	The Divergence Test
	The Integral Test
	The Limit Comparison Test
	The Ratio Test
	The Alternating Series Test
	Absolute and Conditional Convergence of Series
Power Series	Power Series
Taylor and Maclaurin Series	Taylor and Maclaurin Series
	Basic Exercises with Maclaurin Series
	Expansions about General Point
	Finding Nonzero Terms in Expansions
	Sum of Series Using Taylor and Maclaurin Expansions
	Finding Limits Using Expansions
	Computations with Taylor Series

OUR CURATED COLLECTIONS

Subjects

Precalculus   Probability
Calculus I   General Chemistry
Calculus II   Organic Chemistry I
Statistics   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
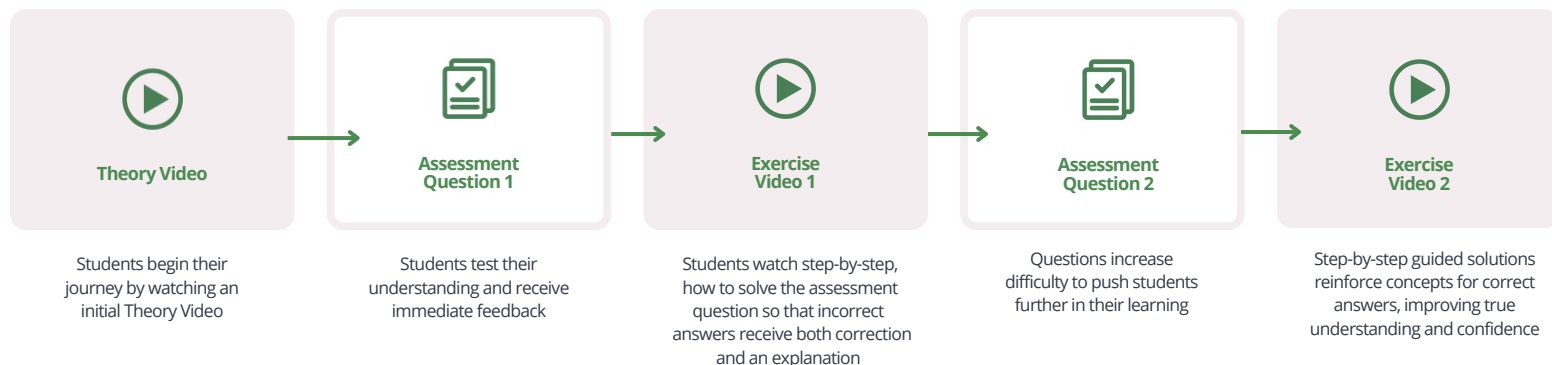- ✓ Customizable courses may be edited to suit the needs of specific learners

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 → **Assessment Question 1** → **Exercise Video 1** → **Assessment Question 2** → **Exercise Video 2**

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

Exercise Video 2
Step-by-step guided solutions reinforce concepts for correct answers, improving true understanding and confidence

Boost

Learn more at boost-proprep.com