

## Refresh and Supplemental Resources for Calculus I

These resources are designed to be used to help students refresh their prerequisite course knowledge and provide supplementary course resources.

Calc I Topic	Algebra/Trig Prerequisite Videos	Algebra/Trig Prerequisite Practice Problems
Function Representations	Functions, <a href="#">Absolute value</a>	<a href="#">Functions</a>
Catalog of Functions	<a href="#">Exponents</a> , <a href="#">Radicals</a>	<a href="#">Exponential Functions</a> , <a href="#">Logarithm Functions</a>
Transformations of Functions	<a href="#">Graphing and common graphs</a>	<a href="#">Common Graphs</a>
Calculating Limits	<a href="#">Multiplying polynomials</a> , <a href="#">Rationalizing</a> , <a href="#">Factoring</a> , <a href="#">Domain of rational expressions</a>	<a href="#">Multiplying Polynomials</a> , <a href="#">Rationalizing</a> , <a href="#">Factoring</a> , <a href="#">Domains</a>
Derivatives and Rates of Change	<a href="#">Simplifying rational expressions</a>	<a href="#">Rational Expressions</a>
Differentiation formulas	<a href="#">Exponents</a> , <a href="#">Radicals</a>	<a href="#">Radicals and exponents</a>
Derivatives of trigonometric functions	<a href="#">Graphs of trig functions</a> , <a href="#">trig formulas</a> , <a href="#">trig function evaluation</a>	<a href="#">Trig Functions</a> , <a href="#">Graphs of Trig Functions</a>
Chain rule	<a href="#">Exponents</a> , <a href="#">Simplifying rational expressions</a>	<a href="#">Exponents</a> , <a href="#">Rational Exponents</a>
Implicit differentiation	<a href="#">Solving equations</a>	<a href="#">Linear equations</a> , <a href="#">Quadratic Equations</a>
Related rates	Review front of book chart on geometry formulas	
Optimization	<a href="#">Factoring</a>	<a href="#">Factoring in Algebra</a>

### Additional Useful Resources:

- Just Math Tutorials (<http://patrickjmt.com/>) – short videos showing how to solve problems from algebra, trigonometry, calculus, differential equations, linear algebra and probability and statistics
- Khan Academy (<https://www.khanacademy.org/>) – structured online mathematics course materials, including instructional videos and practice problems
- Paul’s Online Notes (<https://tutorial.math.lamar.edu/problems/calci/calci.aspx>) - mathematics practice problems with solutions
- Desmos (<https://www.desmos.com/calculator>) - online graphing calculator
- WolframAlpha (<https://www.wolframalpha.com/>) – multifunctional computational platform that helps solve equations, graph functions, look up formulas, etc.
- Algebra Cheat Sheet ([https://tutorial.math.lamar.edu/pdf/Algebra\\_Cheat\\_Sheet.pdf](https://tutorial.math.lamar.edu/pdf/Algebra_Cheat_Sheet.pdf)), Trigonometry Cheat Sheet ([https://tutorial.math.lamar.edu/pdf/Trig\\_Cheat\\_Sheet.pdf](https://tutorial.math.lamar.edu/pdf/Trig_Cheat_Sheet.pdf)), and Calculus Cheat Sheet ([https://tutorial.math.lamar.edu/pdf/calculus\\_cheat\\_sheet\\_all.pdf](https://tutorial.math.lamar.edu/pdf/calculus_cheat_sheet_all.pdf))

