

Refresh and Supplemental Resources for Calculus II

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

Calc II Topic	Calc I Prerequisite Videos	Calc I Prerequisite Practice Problems
Area between 2 curves	Basic Integration	Indefinite Integrals
Trig Integrals	Derivatives of Trig Functions	Differentiate Trig Functions
Volumes	Integrate using U substitution	Substitution Rule
Integration by parts	Derivative of logarithms	Derivative of powers and logs
Integration by parts	Differentiation rules	Product and Quotient rule, Chain Rule
Partial fractions	Factoring Quadratics	Factoring practice problems
Differential equations	Implicit differentiation	Implicit differentiation practice
Areas and lengths in polar coordinates	Polar Coordinates – The Basics	Polar Coordinates – Practice Problems
Sequences and series	Sigma notation	Summation notation notes

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), Trigonometry Cheat Sheet (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)