

Resources for AP Calculus, Honors Calculus and College Prep Calculus

Limits

1. Analytic http://staffweb.psdschools.org/kbenedic/Mr_Benedict/Calculus_AB/Unit%201/1.3%20-%20Finding%20Limits%20Analytically.pdf
2. That DNE <http://www.youtube.com/watch?v=fU7JNYBxiaY>
3. One sided Limits <http://www.youtube.com/watch?v=JXVUyk2JOU4>
4. Special Trig Limits http://www.csun.edu/~ama5348/calculus/presentations/math150a_2_7video.pdf
5. Intermediate Value theorem <http://www.youtube.com/watch?v=6AFT1wnld9U>

Derivatives

1. Limit Definition of the Derivative http://www.math.hmc.edu/calculus/tutorials/limit_definition/
2. Power and Constant
3. Product <http://17calculus.com/calc03-product.php>
4. Quotient <http://17calculus.com/calc03-quotient.php>
5. Chain <http://17calculus.com/calc03-chain.php>
6. Implicit <http://www.youtube.com/watch?v=5yTVUZCaU6k>
7. Trigonometric <https://www.math.ucdavis.edu/~kouba/CalcOneDIRECTORY/trigderivdirectory/TrigDerivatives.html>
8. Related Rates <http://www.math.utah.edu/~petersen/1210/RelatedRatesAnswers.pdf>
9. Velocity and Acceleration <http://www.youtube.com/watch?v=pFeuGMMiZWw>

Curve Sketching

1. First Derivative Test <http://www.youtube.com/watch?v=Z7QWpBU1ePU>
2. Second Derivative Test <http://www.youtube.com/watch?v=Z7QWpBU1ePU>
3. Rolle's vs Mean Value Theorem <http://www.youtube.com/watch?v=jgDyHxQxqM>
4. Curve Sketching <http://calculus.nipissingu.ca/tutorials/curves.html>
5. Limits at Infinity <http://www.mathsisfun.com/calculus/limits-infinity.html>
6. Optimization http://www.khanacademy.org/math/calculus/derivative_applications/calc_optimization/v/optimizing-box-volume-graphically

Integration

1. Antiderivatives https://www.khanacademy.org/math/integral-calculus/indefinite-definite-integrals/indefinite_integrals/v/antiderivatives-and-indefinite-integrals
2. Riemann Sums <http://www.youtube.com/watch?v=gFpHHTxsDkI>
3. Fundamental Theorem of Calculus <http://www.khanacademy.org/math/calculus/integral-calculus/fundamental-theorem-of-calculus/v/fundamental-theorem-of-calculus>
4. U-substitution http://www.khanacademy.org/math/calculus/integral-calculus/u_substitution/v/u-substitution
5. Change of Variable U-substitution http://www.khanacademy.org/math/calculus/integral-calculus/u_substitution/v/u-substitution

Logarithms

1. Derivative of "e" and "ln" http://people.hofstra.edu/stefan_waner/realworld/tutorials/unit3_3.html
2. Integration of "e" and "ln" http://www.khanacademy.org/math/calculus/integral-calculus/u_substitution/v/u-substitution

Areas and volumes

1. Area between curves <http://17calculus.com/calc04-integ-area.php>
2. Volume of rotating solids <http://17calculus.com/calc04-volume-integrals.php>