

Tutor Math Apps and Websites Guide

Algebra

- Desmos.com Graphing Calculator, <https://www.desmos.com/calculator>



Enter a function and Desmos will graph it.

- Paul's Online Notes Algebra, <http://tutorial.math.lamar.edu/Classes/Alg/Alg.aspx>
This is one of the most extensive algebra sites on the internet. It includes exponents, polynomials, linear and quadratic equations, graphing, exponential and logarithmic functions, matrices, and non-linear systems, as well as examples and solutions for each type of problem.

Calculus

- Derivative Calculator, <https://www.derivative-calculator.net>
This site allows users to enter a function. The online calculator displays the step-by-step process for calculating the derivative of the function, and users can also request higher order derivatives. The function and the derivatives are graphed at the bottom of the webpage.
- Implicit Differentiation, <https://www.math.ucdavis.edu/~kouba/CalcOneDIRECTORY/implicitdiffdirectory/ImplicitDiff.html#PROBLEM%201>
This site includes more than a dozen problems and detailed solutions.

- Integral Calculator, <https://www.integral-calculator.com>



This site allows users to enter a function. The online calculator displays the step-by-step process for calculating the integral of the function, and users can also request that the site compute definite integrals. The function and its integral are graphed at the bottom of the webpage.

- Paul's Math Notes, Calc I, <http://tutorial.math.lamar.edu/Classes/Calcl/Calcl.aspx>
This is the first of three extensive calculus sites on the internet. It includes functions, trigonometric equations, exponential and logarithmic equations, derivatives, implicit differentiation, optimization, business problems, integrals, and area and volume problems, as well as examples and solutions for each type of problem.
- Paul's Math Notes, Calc II, <http://tutorial.math.lamar.edu/Classes/CalclI/CalclI.aspx>
This is the second of three extensive calculus sites on the internet. It includes integration techniques, integral applications, parametric equations and polar coordinates, series, vectors, three dimensional applications, as well as examples and solutions for each type of problem.
- Paul's Math Notes, Calc III, <http://tutorial.math.lamar.edu/Classes/CalclII/CalclII.aspx>
This is the third of three extensive calculus sites on the internet. It includes three dimensional space problems, partial derivatives and their applications, and multiple, line, and surface integrals, as well as examples and solutions for each type of problem.
- Paul's Math Notes, Differential Equations, <http://tutorial.math.lamar.edu/Classes/DE/DE.aspx>
This site includes direction fields, first and second order differential equations, Laplace transforms, systems of differential equations, eigenvalues and eigenvectors, higher order differential equations, boundary value problems, Fourier series, and partial differential equations, as well as examples and solutions for each type of problem.

- Wolfram Alpha Differential Equations, <https://www.wolframalpha.com/examples/mathematics/differential-equations/>



This site solves an extensive variety of differential equations.

Calculators

- HiPER Scientific, available from Google Play



This is a standard scientific calculator with many of the same functions as the TI-84.

- FSC app, available from Google Play



This calculator has a user-friendly interface, solves polynomials, systems of equations, and matrices, and performs several statistical functions

Equation Solvers

- Cymath app, available from Google Play



This app calculates derivatives, expands polynomials, factors expressions, graphs equations, integrates expressions, simplifies, and solves equations, and provides step-by-step solutions.

- Mathway, <http://www.mathway.com>



This site allows users to solve a wide variety of basic math, pre-algebra, algebra, trigonometry, precalculus, calculus, statistics, finite math, linear algebra, chemistry, and graphing problems.

Excel

- Excel Functions, http://denisemeeks.com/science/notebooks/notebook_excel.php

This site provides the syntax of each Excel function, and allows users to print groups of functions by type.

- Excel Functions by Category, <https://support.office.com/en-us/article/Excel-functions-by-category-5f91f4e9-7b42-46d2-9bd1-63f26a86c0eb>

This Microsoft site provides detailed information and examples of all Excel functions.

Geometry

- Geometry Visualized app, available from Google Play



This app allows users to manipulate triangles, circles, lines, and angles, and extract sines and cosines from an interactive unit circle.

- Geometryx app, available from Google Play







This interactive app provides parameters for 2-D shapes, and parameters, areas, and volumes for 3-D objects.

- Mathguide.com Conic Sections, <http://www.mathguide.com/lessons/ConicSections.html>
This site provides an overview of conic sections, and specific information on circles, ellipses, parabolas, and hyperbolas, and links to YouTube videos on conic sections.
- Triangle Calculator, <https://www.calculator.net/triangle-calculator.html?vc=&vx=5&vy=&va=&vz=5&vb=65&angleunits=d&x=55&y=15>
Users can enter side and angle measurements of a triangle and the calculator will provide the unknown side lengths and angle measurements.
- Wolfram Alpha Conic Sections, <https://www.wolframalpha.com/examples/mathematics/geometry/coordinate-geometry/conic-sections/>




This site calculates all of the parameters for input conic equations and graphs the conic.

Probability and Statistics

- AnalyStat app, available from Google Play
 This app performs descriptive, and inferential statistics calculations, power analyses, and provides examples that users can load to learn to use the app.
- Probability Distributions app, available from Google Play
 This app allows users to select a distribution and its parameters. The app then graphs the appropriate area, and provides the equations relevant to the distribution.
- Shapes of Distributions, <http://mathbitsnotebook.com/Algebra2/Statistics/STdistributionShapes.html>
This site provides a concise, visual review of histograms, dot plots, and box plots for symmetric, skewed right, skewed left, and uniform distributions.
- Wolfram Alpha Probability, <https://www.wolframalpha.com/examples/mathematics/probability/>
 This site solves a variety of probability problems.
- Wolfram Alpha Statistics, <https://www.wolframalpha.com/examples/mathematics/statistics/>
 This site provides descriptive statistics, statistical inference, regression analysis, and random variables problems and solutions.

TI-84

- Texas Instruments TI-84 Apps, <https://education.ti.com/en/software/search/ti-84-plus-family-ti-83-plus-family>
 This site provides access to downloadable TI-84 apps, which can be transferred from a laptop to a TI-84 calculator with the cable that came with the calculator, or a replacement cable. Useful apps are CtlgHelp, PlySmlt2, Conics, Periodic, SciTools, and Celsheet
- TI-84 Functions, http://denisemeeks.com/science/notebooks/notebook_ti84.php
This site provides the syntax of each TI-84 function, and allows users to print groups of functions by type.

Trigonometry

- Paul's Math Notes, Algebra Trig Review, <http://tutorial.math.lamar.edu/Extras/AlgebraTrigReview/TrigIntro.aspx>
This site provides an extensive review of algebra, trigonometry, and exponential and logarithmic functions, as well as examples and solutions for each type of problem.
- Wolfram Alpha Trigonometry, <https://www.wolframalpha.com/examples/mathematics/trigonometry/>
This site solves an extensive variety of trigonometric equations.

