

PURCHASE INFORMATION

The Maplets for Calculus can be purchased from the authors, or from the Maplesoft webstore:

<http://webstore.maplesoft.com>

A single-user license is \$29.95.

Note: Maple 10 (or newer) is required.

http://www.maplesoft.com/products/thirdparty/maplets_calc

The Maple Calculus Kit is a bundle containing Maple 11, Maplets for Calculus, and the Precalculus and Calculus Study Guides:

<http://www.maplesoft.com/students/bundle>

Special pricing and licensing for high schools and 2-year institutions; call Maplesoft at 1-800-267-6583 ext. 411.

USER FEEDBACK

The authors welcome any feedback about the Maplets for Calculus. In particular, they encourage suggestions for additional maplets as well as enhancements to existing maplets. Please speak with either author, or send e-mail to either meade@math.sc.edu (Doug Meade) or yasskin@math.tamu.edu (Phil Yasskin)

TRIAL ACCESS TO MAPLETS FOR CALCULUS (FACULTY ONLY)

If you would like to test drive the Maplets for Calculus, please visit:

<http://m4c.math.sc.edu/>
<http://m4c.math.tamu.edu/>

To access this secure site, enter atcm2008 as the username and password. This account will remain active through January 2009.

Please contact the authors if additional time is needed to complete your evaluation.



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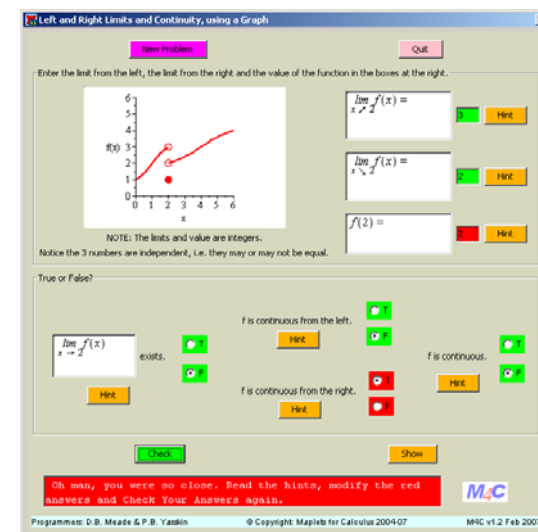
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Maplets for Calculus

Maple-Based Applets
for Drill and Practice on
94 Topics in
Single-Variable Calculus



USER FRIENDLY

INSTRUCTIVE

Pre-Calculus (22)

- Basic 7 Functions (2D)
- Shifting Functions (2D)
- Reflecting Functions (2D)
- Solving Linear Absolute Value Eqns (2D)
- Factor a Quadratic
- Shape of Quadratic: Completed Square (2D)
- Shape of Quadratic: Depend of Coef (2D)
- Maximum or Minimum of a Quadratic
- Finding Vertical Asymptotes (2D)
- Domain and Range Finder (2D)
- Shifting Transcendental Functions (2D)
- Radioactive Decay
- Bacteria Growth
- Solving Logarithmic Equations
- Pythagorean Theorem (2D)
- Triangle Def'n of Trig Functions (2D)
- Circle Def'n of Trig Functions (2D)
- Shifting Trig Functions (2D)
- Properties of Sine & Cosine Curves (2D)
- Solving ASA Triangles with Trig Laws (2D)
- Solving SAS Triangles with Trig Laws (2D)
- 2D Vector Algebra

Limits (8)

- Left and Right Limits and Continuity, using a Graph (2D)
- Left and Right Limits and Continuity, using Numeric Data
- Left and Right Limits and Continuity, using a Formula
- Epsilon-Delta Definition of Continuity (2D)
- Precise Definition of a Limit (Linear Proofs)
- Continuity of Piecewise Functions (2D)
- Intermediate Value Theorem
- Bisection Method for Solving Continuous Equations (2D)

Differentiation (24)

- From Secant Slopes to Tangent Slope, using a Graph and Numeric Data (2D)
- From Secant Slopes to Tangent Slope, using a Formula
- Computing Tangent Lines
- Chain Rule
- Derivative Drill
- Implicit Differentiation
- Logarithmic Differentiation
- Derivatives of Inverse Functions (2D)
- Linear Approximation (2D)
- Related Rates
- Related Rates: The Ladder (2D anim)
- From Position to Velocity to Acceleration
- L'Hospital's Rule
- Parametric Tangent Lines
- Properties of Graph of Function – Terminology (2D)
- Properties of Graph of Function (2D)
- Properties of Graph of 1st Derivative (2D)
- Properties of Graph of 2nd Derivative (2D)
- Max/Min: The Tin Can (2D anim)
- Linear and Quadratic Approximation (2D)
- Anti-Derivative Drill
- From Acceleration to Velocity to Position
- Area as an Antiderivative: Derivation of the Fundamental Theorem of Calculus (2D anim)
- Area as Antideriv: Compute Area (2D anim)

Sequences and Series (4)

- Sequence Drill (2D)
- Geometric Series
- Telescoping Series
- Series Convergence Test Drill (2D)

Curvilinear Coordinates (2)

- Basic 14 Polar Curves (2D)
- Polar Curve Identification (2D)

Integration (28)

- Integration by Substitution
- Integration by Parts
- Tabular Integration by Parts
- Trig Integrals
- Trig Substitutions
- Partial Fractions: General Decomposition
- Partial Fractions: Finding Coefficients
- Partial Fractions: Evaluating the Integral
- Indefinite Integral Drill
- Definite Integral Drill
- Left Riemann Sums
- Right Riemann Sums
- Trapezoid Rule
- Simpson's Rule
- Simpson's Rule Error Formula (2D)
- Area of a Region (2D anim)
- Average Value of a Function (2D)
- Volume by Slicing (3D anim)
- Volume of Revolution (3D anim)
- Arc Length (2D anim)
- Surface Area (3D anim)
- Center of Mass of a Bar (2D)
- Center of Mass of a Uniform Plate (2D)
- Work: Spring
- Work: Gravity
- Work: Lifting a Rope (2D anim)
- Work: Pumping a Liquid (2D)
- Fluid Force (2D)

Differential Equations (4)

- Separable Differential Equations (2D)
- Linear Differential Equations (2D)
- Direction Fields (2D)
- Mixing Problems (2D)

Games (2)

- Cryptogram Puzzle
- The Plotting Game (2D)