

# Lab 3: The Calculus of Inverse Functions

**Lab3.ma** is a *Mathematica* notebook that studies inverse functions. It shows how to invert a function, both algebraically and graphically. It shows how the derivative of the inverse relates to the derivative of the original function. It introduces the hyperbolic functions and analyzes their derivatives.

Like all *Mathematica* notebooks, this one is used by opening its cells and executing its *Mathematica* commands. To open a cell, double-click on its cell bracket. To execute a *Mathematica* command, click on its cell bracket to select it, and then press the Enter key (not the Return key).

**Lab3.wn** explains how to work through **Lab3.ma** on the NeXT.

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## Category:

Mathematics

## Usage:

This software is used by students  
enrolled in Calculus II  
at the University of Richmond.

## Version:

This software uses Mach 2.0

and *Mathematica* 2.0

## References:

This software refers to the two books:

*Calculus and Analytic Geometry*, Fourth Edition

by Sherman K. Stein (McGraw-Hill, 1987).

*A Guidebook to Calculus with Mathematica*

by Philip Crooke and John Ratcliffe (Wadsworth, 1991).