

# Lab 2: Integrals

**Lab2.ma** is a *Mathematica* notebook that demonstrates how to obtain and apply integrals of functions in *Mathematica*. It also shows how to derive the Wallis' formulae for the definite integral of powers of sines and cosines.

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).

**Lab2.wn** explains how to work through **Lab2.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).