Math 1120 Homework Assignment #2
Due in lecture week of September 9

You should do the problems from the book first and check your answers to be sure you understand the methods.

Book problems:

Section 5.5  #5, 7, 13, 19, 29, 39, 43

Section 5.6  #5a, 9a, 47, 55, 65, 81

Hand-in problems:

Section 5.6  24, 58, 104

Section 6.1  4, 12, 20, 38, 52a

A Evaluate \( \int (1 - \cos 2t)^3 \sin 2t \, dt \).

B Evaluate \( \int \frac{dx}{x(\ln x)^3} \).

C Evaluate \( \int_0^1 t^3 \sqrt{1 - t^4} \, dt \).

D Find the area between \( y = \tan x \), and the \( x \)-axis between \( x = -\pi/3 \), and \( x = \pi/4 \).

E Find the area between the curves \( x = y^2 - 1 \) and \( x = 2y \).