REVIEW FOR THE DERIVATIVE SKILLS TEST

Test rules

Because this is a test of your memory and skill in calculating derivatives, you will not be allowed to use your text, notes, or a calculator.

The Definition

You should know the definition of the derivative.

Derivative Rules

You should know, and know how to use, the basic derivative rules:

- The sum rule
- The difference rule
- The constant multiple rule
- The product rule
- The quotient rule
- The chain rule
- The inverse-function rule

Derivatives of Basic Calculus Functions

You should know and be able to use the derivatives of these basic functions:

- Power functions: $x^n$
- Exponential functions: $b^x$
- Logarithmic functions
  - $\ln(x)$
  - $\log_b(x)$
- Trigonometric functions
  - $\sin(x)$
  - $\cos(x)$
  - $\tan(x)$
  - $\cot(x)$
  - $\sec(x)$
  - $\csc(x)$
- Inverse trigonometric functions
  - $\arcsin(x)$
  - $\arctan(x)$

Implicit Differentiation

You should be able to do the differentiation and algebra needed to solve implicit differentiation problems.