

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.