

FORMULAS: The Rockville Mathematics Department instituted a policy regarding the use of formulas, whether on paper or stored in calculators.

For MA 181, the following definitions and formulas must be tested without the aid of a formula sheet or calculator at least once during the semester.

Definitions

- Limit definition of continuity at a point
- Limit definition of the derivative

Derivatives and Antiderivatives

- Derivatives of x^n , e^x , $\ln x$, $\sin x$, $\cos x$, $\tan x$
- The Product rule, Quotient rule, Chain rule, including problems that involve the use of these and the basic formulas above in combination with one another.
- Antiderivatives of x^n , e^x , $\sin x$, $\cos x$, $\sec^2 x$

Students should also be exposed to the following formulas during the semester and should be required to use some or all of them on quizzes or tests that may allow the use of a formula card or calculator.

- Derivatives of $\sec x$, $\cot x$, $\csc x$, $\ln|x|$, a^x , $\log_a x$, $\sin^{-1} x$, $\tan^{-1} x$
- Antiderivatives of $\sec x \tan x$, $\frac{1}{1+x^2}$, $\frac{1}{\sqrt{1-x^2}}$