Section 5.9

I. Exponential Function

A. Specific $y = 2^x$

B. General $y = b^x,\ b > 0,\ b \neq 1$

C. Specific $y = e^x$

II. Natural Logarithm Function as an Inverse of $y = e^x$

A. Properties

III. Natural Logarithm Function as an Integral

A. $\ln x = \int_1^x \frac{dt}{t},\quad x > 0$

B. Properties

IV. Natural Exponential Functions as an Inverse of the Natural Logarithm Function

A. Properties