

Logarithmic and Exponential Functions

Logarithmic and exponential functions are inverses of each other. The logarithmic function with base b is defined as $\log_b(x) = y$ if $b^y = x$. The exponential function with base b is defined as $f(x) = b^x$. Logarithmic and exponential functions can be used to solve various types of problems, such as exponential growth and decay, interest rates, and pH levels.

TOPIC – NO 2

- ❖ Conic Sections
- ❖ Trigonometry
- ❖ Vectors
- ❖ Complex Numbers
- ❖ Matrices and Linear Transformations
- ❖ Differential Equations

Conic Sections

Conic sections are curves that can be obtained by intersecting a cone with a plane. The four main types of conic sections are the circle, ellipse, parabola, and hyperbola. Conic sections can be analyzed algebraically using various techniques, such as completing the square, finding the standard form, and identifying key features.