PRE-CALCULUS

Week 1
Functions
Composition of functions
Inverse Functions
Graph of Functions
Polynomial Functions
Finding Factors & Zeros, Fundamental Theorem

Week 2
Rational Functions & Their Graphs
Exponential Functions, Equations & Their Graphs
Logarithmic Functions, Equations & Their Graphs

Week 3 & 4
Trigonometry
Trigonometric Ratios
Identities about Correlation within Trigonometric Ratios
Graph of Trigonometric Functions (Sine & Cosine Mainly)
Sum & Difference, Half or Double Angle Identities
Inverse Trigonometric Functions

Week 5
Matrix Algebra
Matrices
Subtraction & Addition
Multiplication of Matrices, Scalar Multiplication
Matrix Inverse
Row Operations
Solving System of Equations using Matrices

PRE-CALCULUS

Week 6
Conic Sections
Introduction to Conic Sections
Ellipse, Centre, Radii, Foci
Parabolas, Hyperbolas

Week 7
Vector Introduction
Addition & Subtraction
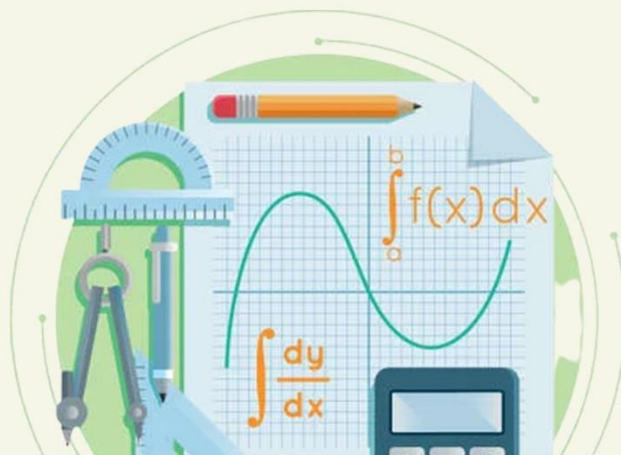Scalar & Vector Multiplication
Word Problems

Week 8
Binomial Theorems
Mathematical Induction
Parametric Equations
Polar Coordinates, Conversion from Cartesian to Polar Coordinates

Week 9
Limits & Continuity