

Comp 110 -- Prerequisites

1. Algebra

- Methods for Solving Linear Equations
- Quadratic Formula

2. Analytic Geometry

- Distance between Two Points
- Slope of a Line between Two Points
- Equation of a Line between Two Points
- Equation of a Circle with an Arbitrary Center and Radius
- Equation of a Sphere
- Equation of a Cylinder
- Equation of a Cone

3. Volume

- Volume of a Sphere
- Volume of a Cylinder
- Volume of a Cone

4. Vectors

- Length
- Direction
- Dot Product
- Cross Product

5. Geometry

- Pythagorean Theorem

6. Trigonometry

- Sine and Cosine of the Sum and Difference of Two Angles
- Sine and Cosine of the Half Angle
- Law of Cosines

7. Calculus

- Derivative
 - Relation to Slope
 - Relation to Velocity
- Integral
 - Relation to Area
 - Relation to Distance
- Fundamental Theorem of Calculus
 - Relation between Differentiation and Integration