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Complex Numbers

Complex Numbers will be treated with a modern geometric approach.

Real Numbers correspond to points on a straight line

Complex Numbers correspond to points in the plane.

Complex Numbers have many wonderful geometric properties that relate geometry and algebra.

Trigonometry is more fully understood when one understands complex numbers. Euler's identity is the key to this.

Complex numbers are very powerful and indispensable in modern STEM subjects.

C1 Real Numbers Synopsis

C2 Complex Number Definition

C3 Complex Numbers Geometry

C4 Complex Number Geometry Proof

C5 Interlude for Inspiration y^x

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C8 Motivation for Wonderful Equation

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GST2 Ceva's Theorem pp 27-29

GST3 Heron's & Brahmagupta's Formulae p 18 Prob 20, pp 30-31

GST4 Geometry and Algebra, Analytical Geometry

GST5 Euclid Geometry vs Non-Euclidean Geometries

GST6 Calculus Preview