

Geometry In-Depth Topics (correlation to Common Core, Geometry)

Topic A: Sign rules

Topic B: Derivation of the quadratic formula

Topic C: Conic section applications and equation derivations **G-Co-2, G-GPE-1,2,3**

Topic D: Euclidean/non-Euclidean geometry

Topic E: Constructions **G-Co-12,13**

Topic F: Exterior Angle Sum Theorem

Topic G: Interior Angle Sum Theorem

Topic H: Derivation of the Sine Law **G-Srt-10**

Topic I: Derivation of the Cosine Law **G-Srt-10**

Topic J: Derivation of a triangle area formula **G-Srt-9**

Topic K: Analytic Geometry and the use of Equations in Geometry
G-GPE-4,5,6, 7

Topic L: Area & volume density and associated unit conversions **G-MG-2**

Topic M: Deductive and Inductive reasoning **G-Co-9,10,11; G-GPe-4,5,6,7**

Topic N: Area of regular polygons by apothem-area **G-GPe-7**

Topic O: Tessellations **G-CO-12**

Topic P: Fractals **G-CO-12**