

Ratio of the Sides Between a Regular Polygon and an Interior Polygon Formed by its Non-Opposite Diagonal Lines

Deangelo Brasen, *Stanford University*

Determining the lengths of a side of a regular polygon formed by the diagonals of a larger similar polygon can be accomplished using properties of trigonometry and regular polygons to generalize the ratios. However, in order to find the length of a side of a polygon generated by the diagonal lines of a general polygon, we first must understand how the side lengths form the polygon. In this article, we find a general formula for the ratio of the side lengths of a regular polygon and an interior polygon formed by the non-opposite diagonal lines of the original polygon.

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Deangelo Brasen is a freshman undergraduate at Stanford University. Currently, his plans are to major in math and physics. He has been learning calculus, analysis, and linear algebra, with interests in relativity and quantum mechanics.