Phi: The World's Perfect Proportion

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Abstract

Since the time of the Ancient Greece, a number representing incomprehensible beauty has existed. This number is known as Φ, phi. Similar to pi, π, an irrational number, phi, Φ cannot be written as a simplified fraction. Derived from the Fibonacci sequence, Φ has a value of $\frac{1+\sqrt{5}}{2}$. As a decimal approximation its value would be 1.6180339887. The Golden Rectangle concept was obtained through the use of Φ as a side length proportion. By letting one side equal 1 and the other side equal Φ, a Golden Rectangle came into being. This rectangle is special because, after taking out a square with the dimensions of the width of the rectangle, one is left with a rectangle with the same proportioned sides 1:Φ. From this experiment I hoped discover a triangle that would possess similar properties to the Golden Rectangle. The triangle, despite the number of divisions made, would result in a smaller triangle of the same proportion as the original.