



Image from: [Cutting a nautilus shell in half reveals chambers... in Handy Answer: The Handy Math Answer Book](#)

Summary Article: **Golden Section**  
from *The Columbia Encyclopedia*

in mathematics, division of a line segment into two segments such that the ratio of the original segment to the larger division is equal to the ratio of the larger division to the smaller division. If  $c$  is the original segment,  $b$  is the larger division, and  $a$  is the smaller division, then  $c = a + b$  and  $c/b = b/a$ . Thus,  $b$  is the geometric mean of  $a$  and  $c$ ; the ratio is known as the Divine Proportion. The Golden Rectangle, whose length and width are the segments of a line divided according to the Golden Section, occupies an important position in painting, sculpture, and architecture, because its proportions have long been considered the most attractive to the eye. The constructions of regular polygons of 5, 10, and 15 sides depend on the division of a line by the Golden Section. The numerical ratio of the greater segment of the line to the shorter segment as determined by the Golden Section is symbolized by the Greek letter phi and has the approximate value 1.618. It occurs in many widely varying areas of mathematics. For example, in the Fibonacci sequence (the sequence of numbers formed by adding successive members to find the next member—0, 1, 1, 2, 3, 5, 8, 13, ...), the values of the ratios  $1, 2/1, 3/2, 5/3, 8/5, 13/8, \dots$  approach the value of the Golden Section.

See Huntley, H. E. , *The Divine Proportion* (1970).

**APA**

Chicago

Harvard

MLA

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Golden Section. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from [https://search.credoreference.com/content/topic/golden\\_section](https://search.credoreference.com/content/topic/golden_section)

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## APA

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## Chicago

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## Harvard

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## MLA

"Golden Section." *The Columbia Encyclopedia*, Paul Lagasse, and Columbia University, Columbia University Press, 8th edition, 2018. *Credo Reference*, [https://search.credoreference.com/content/topic/golden\\_section](https://search.credoreference.com/content/topic/golden_section). Accessed 27 May 2019.