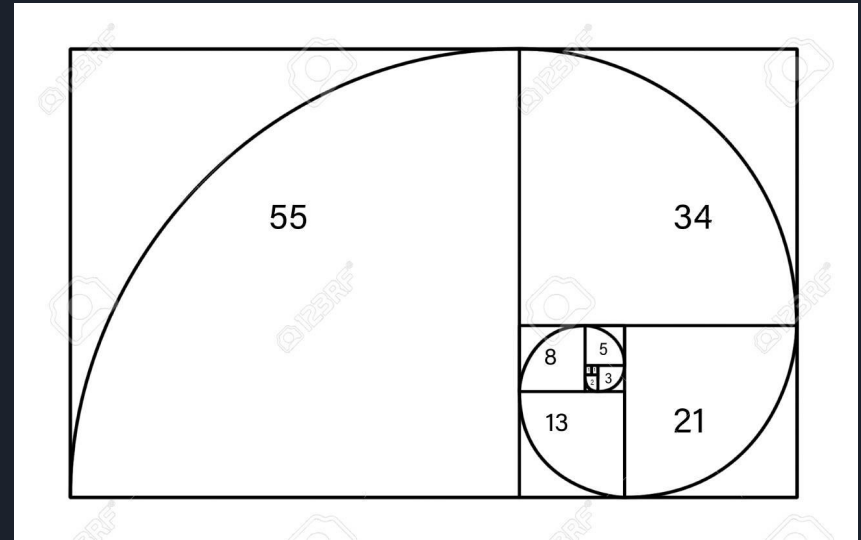# The Golden Ratio

What is the golden ratio ?

In maths , two quantities are in a golden ratio if their ratio is the same as the ratio of their sum to the larger of the two quantities .

In simple terms .....

the Golden Ratio exists when a line is divided into two parts and the longer part (a) divided by the smaller part (b) is equal to the sum of (a) + (b) divided by (a), which both equal 1.618.
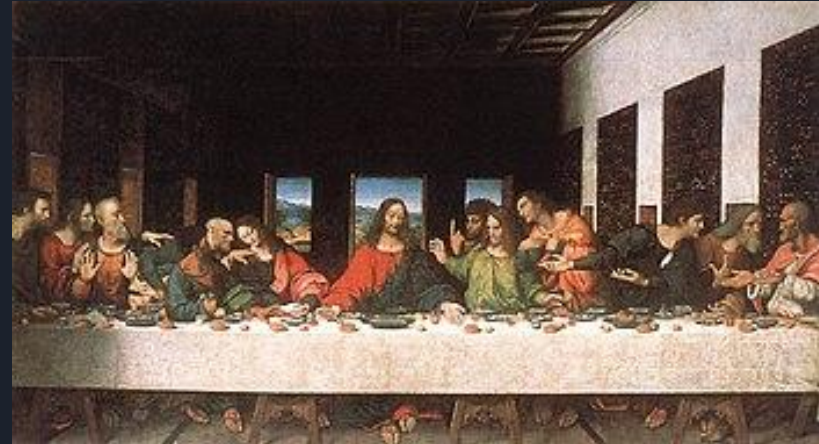
History

The Golden Ratio was potentially used in the design of the great pyramids in ancient egyptian times . It is also said to have been used in the design of the parthenon . Phidias (500 BC – 432 BC), a Greek sculptor and mathematician, studied phi and applied it to the design of sculptures for the Parthenon. However , it wasn't until the 19th century that it was first known as the 'golden ratio' . It was first mentioned in 1815 in Martin Ohm's "Die reine Elementar-Mathematik" (The Pure Elementary Mathematics).
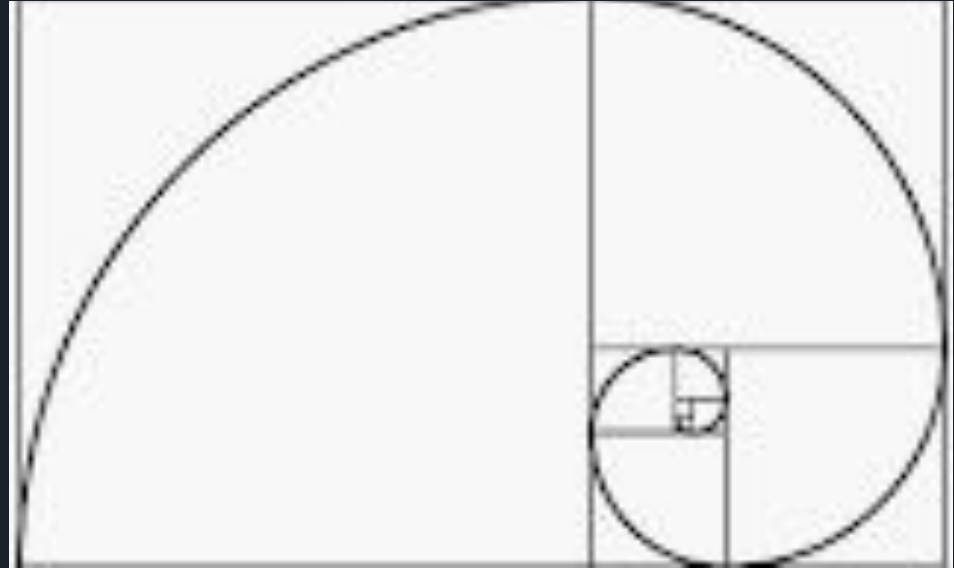
DaVinci's use of the Golden Ratio

Throughout DaVinci's life many of his paintings used the ratio to maintain balance and beauty within his artwork. For example, Leonardo Da Vinci used it to define all the fundamental proportions of his painting of "The Last Supper," from the dimensions of the table at which Christ and the disciples sat to the proportions of the walls and windows in the background.

Where is the golden ratio used ?

The golden ratio has been used in many products logos such as Pepsi and Twitter. It is also commonly used in photography to produce an 'aesthetically pleasing' image for the audience . In history the Golden ratio has been used in paintings such as 'The Mona Lisa' and sculptures such a ~~ss the 'Statue of David'~~

1:1.618

More recent uses of the Golden ratio

The ratio has been used throughout history as it pleases the eye, making architecture seem more impressive and art more organic with natural looking compositions. However, these attributes have been noticed by today's product giants and has compelled them to use it in advertisement and logos to hopefully increase sales and make their product seem more impressive or 'golden'. Examples of this can be seen in Twitter, Pepsi and Google.

b
a

800 pixels outer circle

500 pixels inner circle

800/500 = 1.618