Fibonacci Series In Nature:

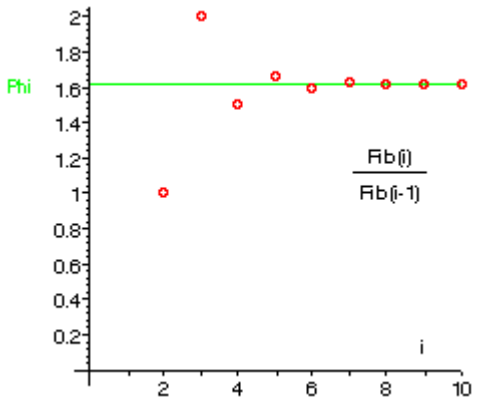
Examples of the Fibonacci series in Nature:

http://britton.disted.camosun.bc.ca/fibslide/jbfibslide.htm

If we take the ratio of two successive numbers in Fibonacci's series, (1, 1, 2, 3, 5, 8, 13, etc.) and we divide each by the number before it, we will find the following series of numbers:

$^{1}/_{1} = 1$, $^{2}/_{1} = 2$, $^{3}/_{2} = 1{\cdot}5$, $^{5}/_{3} = 1{\cdot}666...$, $^{8}/_{5} = 1{\cdot}6$, $^{13}/_{8} = 1{\cdot}625$, $^{21}/_{13} = 1{\cdot}61538...$

It is easier to see what is happening if we plot the ratios on a graph:



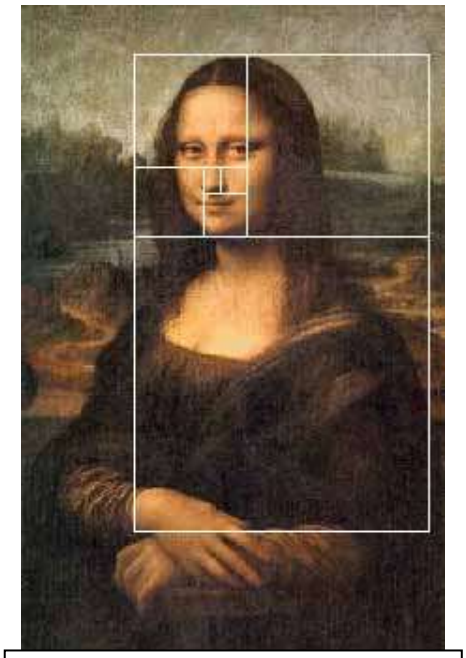
The ratio seems to be settling down to a particular value, which we call **the golden ratio** or **the golden number**. It has a value of approximately **1·618034.**

The **golden ratio** 1·618034 is also called the **golden section** or the **golden mean** or just the **golden number**. It is often represented by a Greek letter **Phi** ϕ. The closely related value which we write as **phi** with a small "p" is just the decimal part of Phi, namely 0·618034.

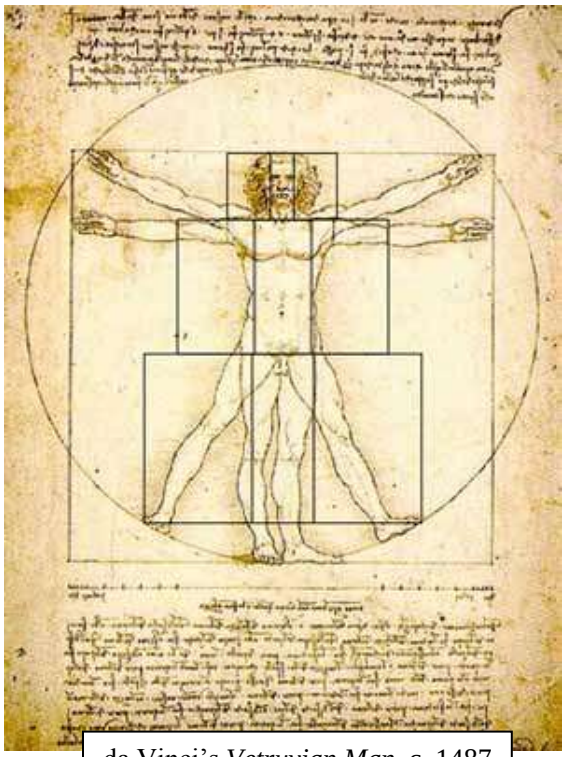
Source: http://www.maths.surrey.ac.uk/hosted-sites/R.Knott/Fibonacci/fibnat.html

A good link for an explanation of the Fibonacci Series in Nature and Art:
http://library.thinkquest.org/27890/theSeries1.html

Discussion of the Golden Rectangle:
http://library.thinkquest.org/27890/goldenRatio1.html

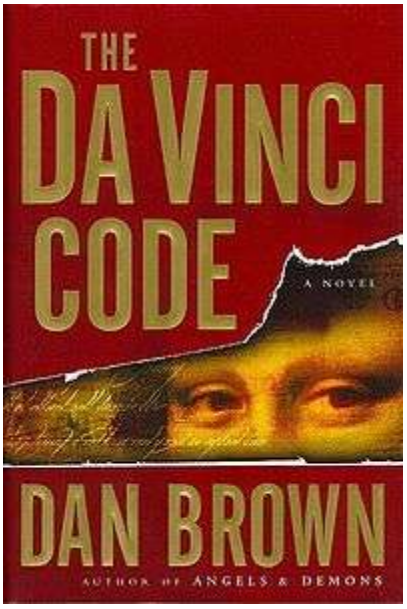


Leonardo da Vinci's *Mona Lisa*
a.k.a. "*La Giaconda*" c. 1503–1506
77 cm × 53 cm, Oil on Poplar
Musée du Louvre, Paris



da Vinci's *Vetruvian Man* c. 1487
34.4 cm × 25.5 cm
Pen and ink on paper
'Accademia, Venice

Source: http://library.thinkquest.org/27890/applications6.html



From Dan Brown's *The Da Vinci Code* (2003):
The number PHI (the Golden Ratio) excerpt.