

Fibonacci sequence

Nikodem Siwiec 3A

A dark blue diagonal gradient bar that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the slide.

What is Fibonacci sequence?

- It is a sequence of natural numbers
- Every next number of sequence is equal to the sum of two previous numbers.
- The sequence is infinite

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987...

Genesis of Fibonacci sequence

- Leonardo Fibonacci from Pisa
- 1202
- “Liber Abaci”
- He was conducting an experiment on rabbits.



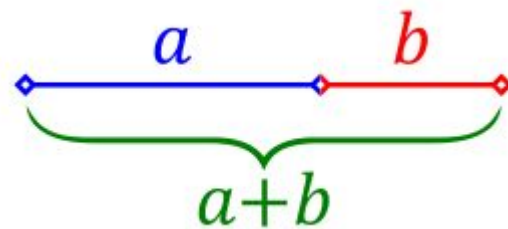
Number Phi

- Number Phi is approximately equal to 1.618
- Phi is greek letter
- He divided every number by previous one
- He saw that every quotient is nearer and nearer to number Phi

WYRAZ CIĄGU	$a_n + 1/a_n$	RÓŻNICA MIĘDZY LICZBĄ φ
1	1	0.6180339887
1	2	0.3819660113
2	1.5	0.1180339887
3	1.6666666667	0.0486326779
5	1.6	0.0180339887
8	1.625	0.0069660113
13	1.6153846154	0.0026493734
21	1.619047619	0.0010136303
34	1.6176470588	0.0003869299
55	1.6181818182	0.0001478294
89	1.6179775281	0.0000564607
144	1.6180555556	0.0000215668

The Golden ratio

The golden ratio divides the segment into two parts so that the length of the entire segment to the longer side is the same as the length of the longer segment to the shorter one.

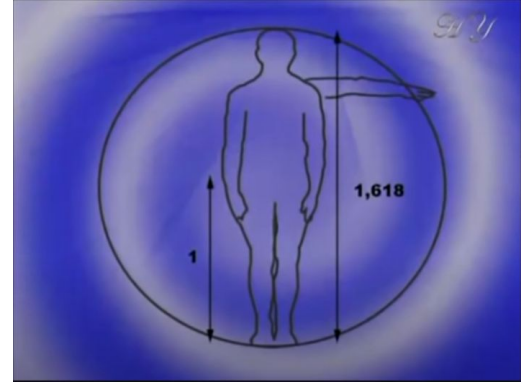


$$\varphi = \frac{a+b}{a} = \frac{a}{b}$$

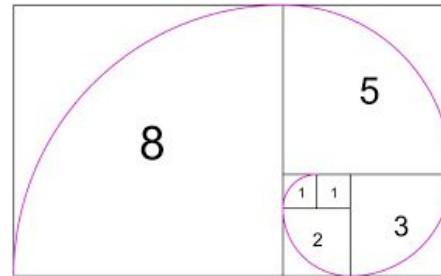
Human body



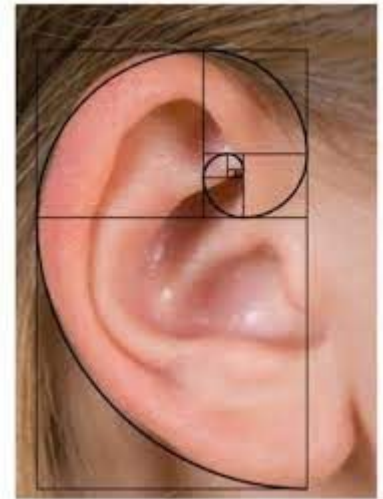
From feet to navel : our height
1 : 1.618



Fibonacci sequence can be also described as a spiral.

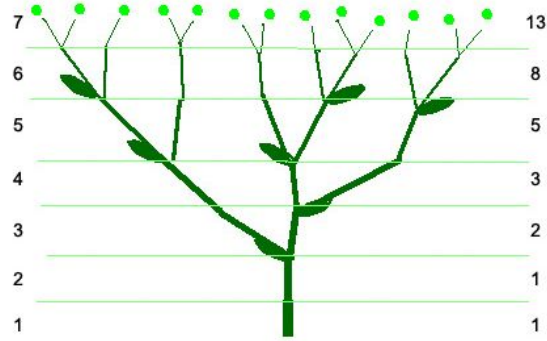


Equiangular spiral

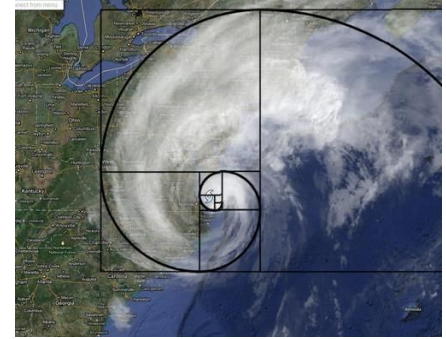


Nature

Flower petals



Tree branches



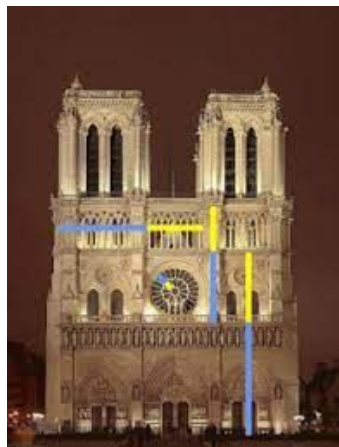
Hurricane Irene



Architecture and Art

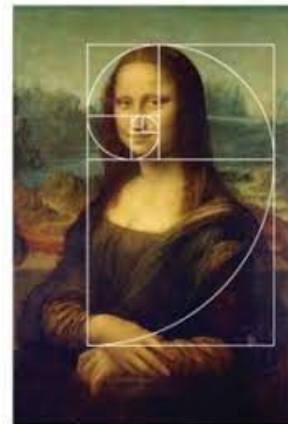
Architecture

Cathedral Notre Dame seems to be perfect. Architects while projecting it used golden ratio.



Art

Mona Lisa is the known on the whole world. Leonardo Da Vinci while painting it used the spiral.



My final product

ME AND A GOLDEN MAN

Nikodem Siwiec 3A

	ME	GOLDEN MAN
THE LENGTH OF THE BODY FROM THE BOTTOM TO THE NAVEL TO THE LENGTH OF OUR ENTIRE BODY, FOR THE 180CM HIGH.	180:110 ✓	180:111 ✓
THE LENGTH OF THE HAND FROM THE FINGERTIPS TO THE ELBOW TO THE LENGTH OF THE FOREARM	49:30 ✓	49:30 ✓
THE LENGTH FROM THE NAVEL TO THE TOP OF THE HEAD COMBINED WITH THE LENGTH FROM THE SHOULDERS TO THE TOP OF THE HEAD	70:29 ✗	70:43 ✗

Thank you for your attention