

The Fibonacci Series

Named after the late 12th C. mathematician Leonardo of Pisa, known as Fibonacci. It is a series essentially derived by adding together the two previous numbers of the series to arrive at a sum, which is then in turn used to derive another sum, *ad infenitum*.

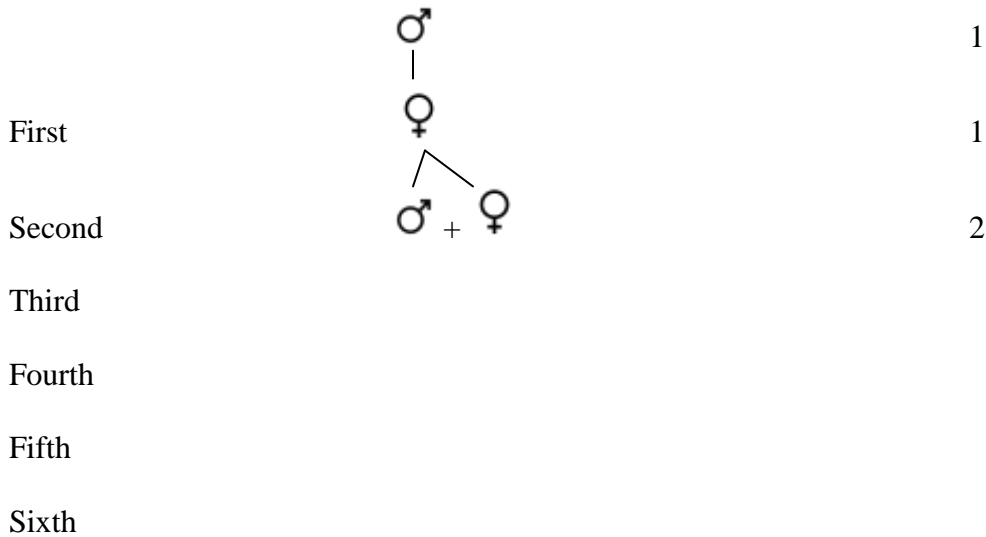
The Fibonacci Series:

(0) 1 1 2 3 5 8 13 21 34 55 89 144 233 etc.

The series has some interesting properties and appears in a wide range of situations, both natural and artificial.

A) The family tree of the male **bee** is an interesting example. A male bee has only one parent, his mother; a female bee, by contrast, has both a mother *and* a father. Keeping these facts in mind, draw the family tree of a male bee. Start with the figure represented and work back six generations.

Generations Back **# of bees in each generation**



B) A pair of **rabbits** one month old are too young to produce more rabbits, but suppose that in their second month and every month thereafter they produce a new pair. If each new pair of rabbits does the same—and none of the rabbits die—how many pairs of rabbits will there be at the beginning of each month? Complete the following table:

Month	Prs. of Baby Rabbits	Prs. of Adult Rabbits	Total Pairs
1	1	0	1
2	0	1	1
3	1	1	2
4	1	2	3
5	2	3	5
6	3	5	8
etc...			