

The Fibonacci numbers are important in many aspects of mathematics, computing and are often found in nature

$$F(n) = \begin{cases} 0, & \text{if } n = 0; \\ 1, & \text{if } n = 1; \\ F(n-1) + F(n-2) & \text{if } n > 1 \end{cases}$$

The Fibonacci numbers are also intimately connected with the golden ratio