

Fibonacci

Name: _____

Leonardo Fibonacci was a leading European mathematician of the Middle Ages, circa 1200. He became interested in patterns similar to the ones below.



Leonardo of Pisa, Italy.

What is the next term in each sequence? Can you discover how these patterns were created?

- 1,1,2,3,5,8,13,21 ? _____
- 2,5,7,12,19,31,50,81 ? _____
- 10,3,13,16,29,45,74,119 ? _____

Use the same rule to complete the patterns below. Prove by showing your math.

A. 10 , _____ , _____ , _____ , _____ , _____ , _____ , 15 , _____ , _____

B. 10 , _____ , _____ , _____ , _____ , _____ , _____ , 0 , _____ , _____
(Leave fractions as is!)

Any other interesting cases that gain insight following these two? If the 8'th term is larger? Smaller? What values (positive or negative) does the series approach as the number of term increases?

=== =End=====