

The Fibonacci sequence is an integer sequence calculated by adding previous numbers together to calculate the next value. This is represented mathematically by saying that $F_n = F_{n-1} + F_{n-2}$ (where F_n is the nth value in the sequence F). The Fibonacci sequence starts with the numbers 0 and 1.

Fibonacci sequence:

F_1 (or User Input)	F_2 (or User Input)	F_3	F_4	F_5	F_6	F_7	F_8	F_9	F_{10}
0	1	1	2	3	5	8	13	21	34

The Fibonacci sequence is also closely related to the “Golden-ratio” (1.618...). You can approximate the golden-ratio by dividing any number in the Fibonacci sequence by the previous number, $G_{est} = F_n/F_{n-1}$. The longer the Fibonacci sequence, the more accurate this approximation becomes.

$$F_5/F_4 = 1.5$$

$$F_{10}/F_9 = 1.619$$

The exact value of the golden ratio can be calculated from

$$G_{exact} = (1 + \sqrt{5})/2$$

Write a function that finds the Fibonacci sequence and the associated ratios of the last two numbers in the sequence, given the length of the sequence and the starting two values. Display the sequence and the ratios to the command window as a two-column table with Fibonacci numbers listed in the first column and the ratios listed in the second column.