

## Fibonacci Sequences

Determine whether each of these sequences is a Fibonacci-like sequence.

- (a) 1, 1, 2, 3, 5, 8, 13, ...
- (b) 1, 2, 3, 6, 11, 20, 37, ...
- (c) 2, 4, 6, 10, 16, 26, ...
- (d)  $-1, 3, 2, 5, 7, 12, \dots$

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Fill in the missing terms in each of these Fibonacci-like sequences.

1st	2nd	3rd	4th	5th	6th	7th	8th
1	3						
2	7						
	5	7					
	7		18				
		20	33				
-2	4						
	10		19				
					6		15

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- (a) Milly think that 70 is in the Fibonacci-like sequence that starts 6, 10, 16, 26, ... Is Milly correct? Explain your answer.
- (b) A Fibonacci-like sequence contains the third term 10. Suggest two possible sequences, and give their first five terms.
- (c) The sum of the first three terms of a Fibonacci-like sequence is zero. What is the third term?
- (d) The first two terms of a Fibonacci-like sequence are  $a$  and  $2a$ . Find the next five terms of the sequence.

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