Fibonacci Sequences

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

(a) $1, 1, 2, 3, 5, 8, 13, \ldots$

(b) $1, 2, 3, 6, 11, 20, 37, \ldots$

(c) $2, 4, 6, 10, 16, 26, \ldots$

(d) $-1, 3, 2, 5, 7, 12, \ldots$

(a) Yes
(b) No
(c) Yes
(d) Yes

Find the next four terms in each of these Fibonacci-like sequences.

(a) $2, 5, \_\_\_, \_\_\_, \_\_\_, \_\_\_, \ldots$

(b) $3, 4, \_\_\_, \_\_\_, \_\_\_, \_\_\_, \ldots$

(c) $1, 3, \_\_\_, \_\_\_, \_\_\_, \_\_\_, \ldots$

(d) $-2, 4, \_\_\_, \_\_\_, \_\_\_, \_\_\_, \ldots$

(e) $1.6, 4.3, \_\_\_, \_\_\_, \_\_\_, \_\_\_, \ldots$

(a) 7, 12, 19, 31
(b) 7, 11, 18, 29
(c) 4, 7, 11, 18
(d) 2, 6, 8, 14
(e) 5.9, 10.2, 16.1, 26.3

(a) The first two terms of a Fibonacci sequence are the first two prime numbers. Find the next four terms in the sequence.

(b) The first two terms of a Fibonacci sequence are the first two triangular numbers. Find the next four terms in the sequence.

(a) 2, 3, 5, 8, 13, 21, ...
(b) 1, 3, 4, 7, 11, 18, ...

(a) Milly think that 70 is in the Fibonacci-like sequence that starts $6, 10, 16, 26, \ldots$ 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.

(a) 6, 10, 16, 26, 42, 68, ...
so No

(b) 5, 5, 10, 15, 25
e.g. 3, 7, 10, 17, 27, ...

(c) 0

(d) a, 2a, 3a, 5a, 8a, 13a