

Fibonacci Sequences

A term in a Fibonacci sequence is obtained by adding together the previous two terms

Ex $1, 1, 2, 3, 5, 8, 13, 21, 34, \dots$

Exam Questions Find next two terms

$3, 3, 6, 9, 15, \underline{\quad}, \underline{\quad}$

First 3 terms in Fibonacci sequence are

$a, a, 2a, 3a, 5a, 8a$

Find the 6th term

$8a$

Other Sequences

$1, 2, 3, 1, 2, 3, 1, 2, 3, \dots$

Find the 34th term = 1

$2, 1, \frac{1}{2}, \frac{1}{4}, \dots$

Next 2 terms $\frac{1}{8}, \frac{1}{16}$

$1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \dots, \frac{1}{5}, \frac{1}{6}$

$2, -4, 8, -16, 32, -64, \dots \times (-2)$

Fluency with sequences Ex 21.15 p447

- a) even $2, 4, 6, 8, 10$
- b) odd > 16 $17, 19, 21, 23, 25$
- c) multiples of 4 $4, 8, 12, 16, 20$
- d) multiples of 6 > 20 $24, 30, 36, 42, 48$
- e) Two more than 5 times table $7, 12, 17, 22, 27$
- f) Square numbers $1, 4, 9, 16, 25$
- g) One more than Sq numbers $2, 5, 10, 17, 26$
- h) Powers of 2 $2, 4, 8, 16, 32$
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