

Algebra 1      3.5

Recognize arithmetic sequences

Relate arithmetic sequences to linear functions

sequence

term

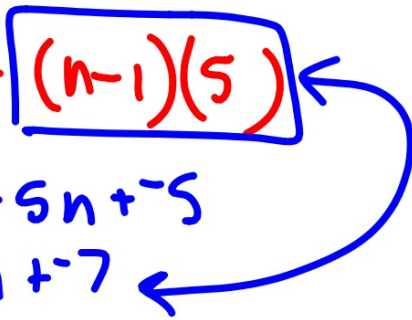
arithmetic sequence

common difference (d)

whiteboards

Write an equation (for the  $n$ th term) of each arithmetic sequence. Then graph the first five terms of the sequence.

$x$	1	2	3	4	5
$y$	-2	3	8	13	18

$$y = -2 + (n-1)(5)$$
$$y = -2 + 5n - 5$$
$$y = 5n - 7$$


Write an equation for the  $n$ th term of each arithmetic sequence. Then graph the first five terms of the sequence.

5. <sup>1 2 3 4 5</sup>15, 13, 11, 9, 7

, ...

$$y = 15 + (n-1)(-2)$$

$-15 - 2n + 2$

$$y = -2n + 17$$
