$a_n = a_1 + (n-1)d$

n^{th}

$-2\ 1\ 4\ \cdots$

$$d = a_2 - a_1$$
$$d = 1 - (-2)$$
$$d = 1 + 2$$
$$d = 3$$

$$a_n = a_1 + (n-1)d$$
$$a_n = -2 + (n-1)3$$
$$a_n = -2 + 3n - 3$$
$$a_n = 3n - 5$$