

**Explicit Expressions and Recursive Processes - Guided Lesson Explanation****Explanation#1**

The recursive formula is given as:

$$t_1 = 0$$

$$t_n = t_{n-1} - 3$$

$t_n$  = the  $n^{\text{th}}$  term in the sequence,  $d$  = the common difference

$t_1$  = the 1<sup>st</sup> term in the sequence,  $n$  the term number

So the explicit formula is

$$t_n = t_1 + d(n-1)$$

$$t_n = -3(n-1)$$

**Explanation#2**

The explicit formula is given as:

$$t_n = 3n - 1$$

$t_n$  = the  $n^{\text{th}}$  term in the sequence,  $d$  = the common difference

$t_1$  = the 1<sup>st</sup> term in the sequence,  $n$  the term number

So recursive formula is

$$t_1 = 2$$

$$t_n = t_{(n-1)} + 3$$

**Explanation#3**

Explicit formula =  $a_n = 3^n$

Recursive formula =

$$a_1 = 3$$

$$a_n = 3a_{n-1}$$

