

Find the requested term of the sequence given the RECURSIVE or EXPLICIT definitions.

- 1) Determine t_{12} , given that $t_1 = 2$ and $t_{n+1} = t_n + 4$

- 2) Determine a_8 , given that $a_1 = 1$ and $a_n = 2 \cdot a_{n-1} + 1$

- 3) Determine t_{21} , given that $t_1 = 25$ and $t_n = 3 \cdot n^2 - 50$

- 4) Determine a_{14} , given that $a_1 = 1$ and $a_n = 2^n - n$

Find the requested term number of the sequence given the RECURSIVE or EXPLICIT definitions.

- 5) Given that $t_1 = 5$ and $t_{n+1} = 2 \cdot t_n - 3$, determine which term of the sequence is 515.

- 6) Given that $a_1 = 1$ and $a_n = 6 \cdot n - 5$, determine which term of the sequence is 241.

Find the RECURSIVE & EXPLICIT definitions and then find the requested term

7) 3 , 5 , 7 , 9 , 11 ,

Find a_{42} =_____

Recursive:_____

Explicit: _____

8) 5 , 8 , 11 , 14 ,

Find a_{33} =_____

Recursive:_____

Explicit: _____

9) 4 , 12 , 36 , 108 ,

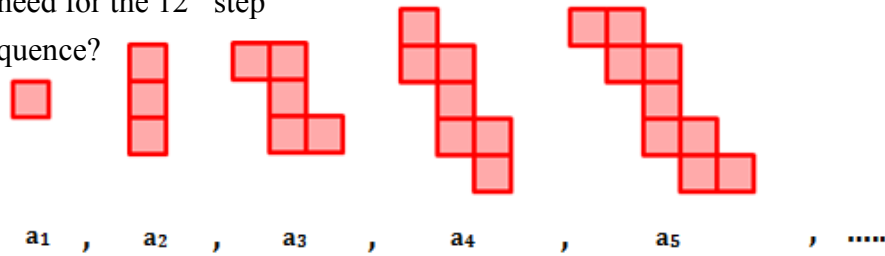
Find a_{21} =_____

Recursive:_____

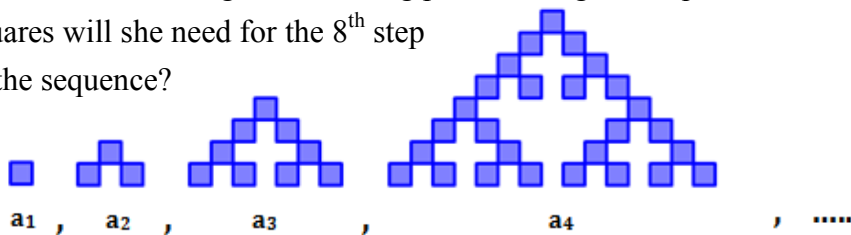
Explicit: _____

Answer the following about the pattern sequences.

- 10) Jessie started creating the following pattern using red square blocks. How many red squares will she need for the 12th step of the sequence?



- 11) Ethan started creating the following pattern using blue square blocks. How many blue squares will she need for the 8th step of the sequence?



- 11) Ashley started drawing several iterations of a binary tree. In each iterative step, the number of new leaves is doubled. How many new leaves will there be on the 9th step of the sequence?

