

# Sequences

1. a. Complete the following table.

n	1	2	3	4	5	6
	● ●	● ● ● ●	● ● ● ● ● ●	● ● ● ● ● ● ● ●		
$a_n$	2					

b. Find a rule for the **nth term**.

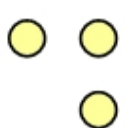
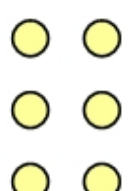
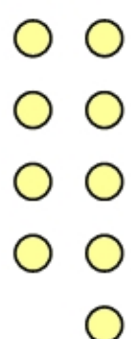
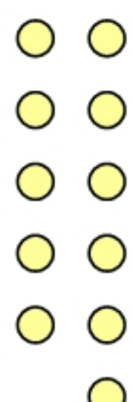
c. What is the 28th term in the sequence shown?

d. Is the number 448 a number in this sequence?

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2. Below is a linear sequence. The pattern for one of the terms is incorrect.



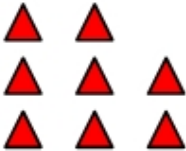
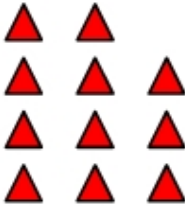
a. Correct the pattern.

n	1	2	3	4	5	6
						
$a_n$	3					

b. Find an expression for the  **$n$ th term**.

c. What is the 48th term in this sequence?

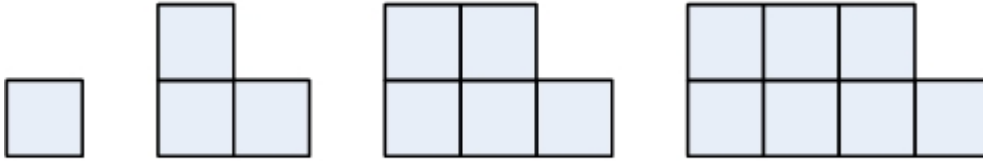
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n	1	2	3	4	5	6
						
$a_n$	2					

3.
  - a. Complete the table for the sequence above.
  - b. Find an expression for the  $n$ th term for this sequence.
  - c. Show that 782 is a member of this sequence.

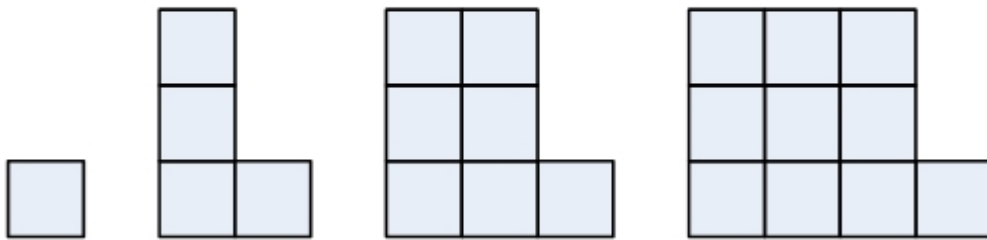
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4. Is this sequence a linear sequence?



Explain how you know.

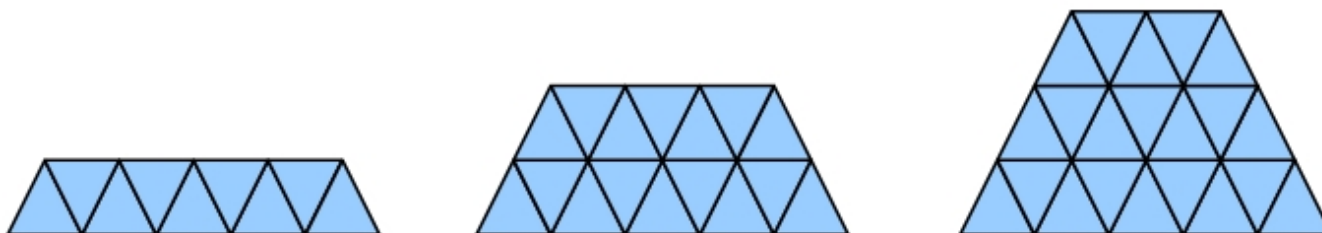
5. a. What are the next four terms in this sequence?



- b. Find an expression for the  $n$ th term.

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6. Is this a linear sequence?



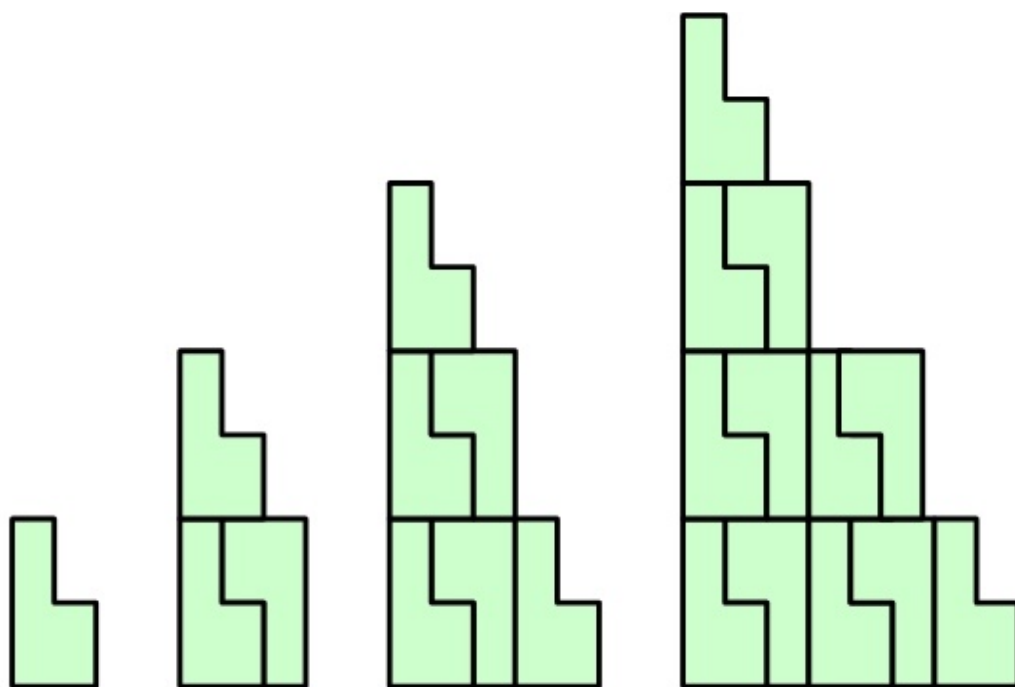
Explain how you know.

Draw the next two terms in the sequence.

Explain why it might be difficult to draw the sixth term in the sequence.

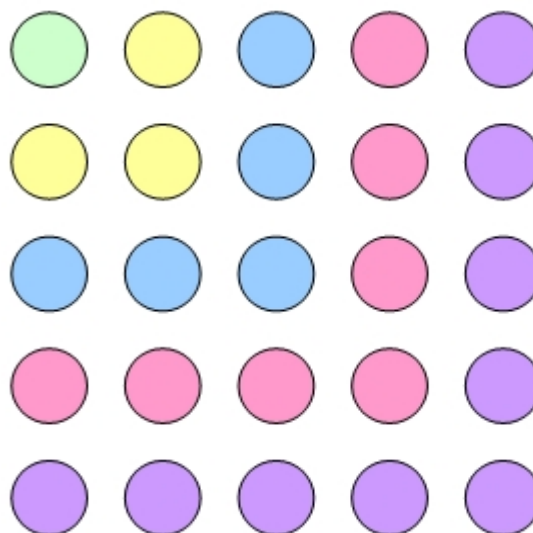
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7. Is there a pattern to the sequence shown?



Can you explain what the next two terms in the sequence might be?

8. What sequences can you see in the patterns on the right?



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Draw the next row in the pattern.

