SEQUENCES

Name:

BAM Indicator: Find and use the n^{th} term for a linear sequence

1. Find the n^{th} term for these sequences **F**

   a) 7, 11, 15, 19, 23, …

   _____

   b) 1, 3, 5, 7, 9, …

   _____

   c) 21, 26, 31, 36, 41, …

   _____

   d) -8, -5, -2, 1, 4, …

   _____

   e) 7, 7.5, 8, 8.5, 9, …

   _____

   f) 17, 15, 13, 11, 9, …

   _____

2. Garry is given the sequence 9, 12, 15, 18, 21, … He says, **M**

   "The n^{th} term of the sequence is n + 3"

   Explain why Garry is wrong

3. The table shows the n^{th} term of nine sequences. Put a ring around the sequences that include the number 24. **P**

4n + 2	30 – 3n	6 + 9n
7n – 4	5n – 1	3n + 1
6n	24n + 2	10n + 4

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4. Jill lives on a road on the side of a steep hill. It is so steep that there are only houses on one side. All of the houses are even-numbered. Many years ago, the first two houses on the road were converted into one house. As a result there is no house numbered 2. a) Find the n^{th} term that gives a list of house numbers on Jill's road _____ b) Jill lives in the eleventh house on the road. What number is Jill's house? _____ c) Jack lives on the same road. His house is the 34^{th} house. What number is Jack's house? _____	**A**
5. Two sequences are given by the n^{th} terms $2n + 8$ and $8n – 1$. Is the following statement true or false? *"There is at least one number that is in both sequences"* Construct a convincing argument to support your answer.	**R**
Overall, I think my success level is: Low ○ ○ ○ ○ High	

F = Fluency R = Reasoning P = Problem-solving A = Application M = Misconception

Q	**SEQUENCES**	☺	☹
	I can find the nth term of an ascending linear sequence		
	I can find the nth term of a descending linear sequence		
	I can use the nth term of a sequence to work out the value of any term		
	I can use the nth term of a sequence to deduce if a number is in that sequence		

Improvements I could make:

Mathematical presentation	Method	Accuracy	Units

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