### Lesson 4 Practice Problems

1. *Technology required*. Open a blank spreadsheet. In A1, type 2 and enter.
	1. What should you type into cell A2 to generate the sequence 2, 4, 8, 16, 32, . . . when you fill down the column?
	2. What should you type into cell A2 to generate the sequence 2, 4, 6, 8, 10, . . . when you fill down the column?
2. *Technology required*. Open a blank spreadsheet. In A1, type 400 and enter.
	1. What should you type into cell A2 to generate the sequence 400, 200, 100, 50, 25, . . . when you fill down the column?
	2. What should you type into cell A2 to generate the sequence 400, 325, 250, 175, 100, . . . when you fill down the column?
3. *Technology required*. Open a blank spreadsheet.
	1. If cell A1 = 5 and cell A2 = A1 \* 3 + 2, what are the first 5 terms of the sequence?
	2. If cell A1 = 1 and cell A2 = (A1 + 2) \* 3, what are the first 5 terms of the sequence?
	3. If cell A1 = 2 and cell A2 = (A1 + 2) \* 3, what are the first 5 terms of the sequence?
4. *Technology required*. Open a blank spreadsheet.
	1. Find the first 5 terms of a geometric sequence that starts with -5 and has a growth factor of -1.
	2. Find the first 5 terms of a geometric sequence that starts with -20 and has a growth factor of 0.5.
	3. Find the first 5 terms of an arithmetic sequence that starts with -20 and has an rate of change of 5.
	4. Find the first 5 terms of an arithmetic sequence that starts with 43 and has an rate of change of -7.
5. Here is the graph of a sequence.
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	1. Explain how you know this sequence is arithmetic.
	2. Explain how you know this sequence is not geometric.
* (From Unit 1, Lesson 3.)
1. The first two terms of a geometric sequence are 6 and 3.
	1. Explain why there is only one geometric sequence with these first two terms.
	2. What are the next 3 terms of this geometric sequence?
* (From Unit 1, Lesson 2.)



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