

Hwk #12

Student: _____ Class: _____ Date: _____

Arithmetic and geometric sequences and series

Student Activity Sheet 1; Overview

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9. **REINFORCE** In this topic, you will continue to study arithmetic and geometric sequences. Before you go further, capture your understanding so far of each type of sequence. Complete this table. State the ideas in your own words and provide your own examples, but also try to incorporate mathematical terms like **common difference** and **common ratio**.

Vocabulary term	My understanding of what the term means	An example that illustrates the term
Arithmetic sequence		
Geometric sequence		

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10. **REINFORCE** Identify each pattern as an arithmetic sequence, geometric sequence, or neither type of sequence. Give evidence for your conclusion.

a. 13, 20, 27, 34, ...

b. 14, 21, 42, 77, ...

c. 16, 64, 256, 1024, ...

d. $\frac{1}{3}, \frac{2}{9}, \frac{4}{27}, \frac{8}{81}, \frac{16}{243}, \dots$

e. 10, 9.99, 9.98, 9.97, ...