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 **Objectives:**

* Find the midpoint between 2 points.
* Find the distance between 2 points.
* Identify an arithmetic sequence.
* Give the common difference of an arithmetic sequence.
* Find the nth term of an arithmetic sequence.
* Find arithmetic means between 2 terms of an arithmetic sequence.
* Identify a geometric sequence.
* Give the common ratio of a geometric sequence.
* Find the nth term of a geometric sequence.
* Find geometric means between 2 terms of a geometric sequence.
* Find the sum of the first n-terms of an arithmetic sequence
* Find the sum of the first n-terms of a geometric sequence.
* Find the sum of an infinite geometric sequence.

***MONDAY (4.21.25****)*

* Remember to turn in your April 19 **E-Learning Day work by Thursday, April 24**.

To help you prepare for these types of questions, you have found your great uncle's old math book. In it you find the following question:

“Three numbers in an arithmetic sequence sum to six. If you add 1 to the first number, 2 to the second number, and 5 to the third number, the result will be a geometric sequence. What are the original three numbers? \_\_\_\_\_\_\_\_\_\_\_\_

There are two possible answers to this problem. What is a second answer? \_\_\_\_\_\_\_\_\_\_\_\_\_

Be sure to answer and explain both sets of answers on a separate sheet of paper.”

**QUIZ: arithmetic/geometric sequences and series.** You may use your notes.

**Class Work/Homework:**

* **Study the material on the following link, Computing Simple and Compound Interest.**

<https://mathbitsnotebook.com/Algebra1/Exponentials/EXCompoundInterest.html>

Then, solve this problem:

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| **.** | **Michelle makes a bank deposit of $1,500 at 4.2% annual interest, compounded monthly. Approximately how much money will be in Michelle’s bank account in 3 years?** |

***WEDNESDAY (4.23.25****)*

**Discuss the previously assigned work.**

**Class Work/Homework: Compound Interest Worksheet (11 Problems)**

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***FRIDAY (4.25.25****)* B-DAY, NO CLASS