

Agenda for Learning about Arithmetic and Geometric Sequences

1. Watch the following videos (you only need to watch the videos up until the part that it talks about series – which you do not need to know).

Intro to Arithmetic Sequences:

<https://www.khanacademy.org/math/algebra/sequences/introduction-to-arithmetic-sequences/v/arithmetic-sequences>

Intro to Geometric Sequences:

<https://www.khanacademy.org/math/algebra/sequences/introduction-to-geometric-sequences/v/geometric-sequences-introduction>

2. Complete the Guided notes (with a partner)

3. Work on the handout – you only need to do the problem *s that are multiples of 3.

4. Finish the problems that you did not complete in class for homework (still only the multiples of 3).

Arithmetic Sequence

In an Arithmetic Sequence **the difference between one term and the next is a constant.**

In other words, we just add the same value each time ... infinitely.

Example:

1, 4, 7, 10, 13, 16, 19, 22, 25, ...

This sequence has a difference of 3 between each number.

Geometric Sequences

In a **Geometric Sequence** each term is found by **multiplying** the previous term by a **constant**.

Example:

2, 4, 8, 16, 32, 64, 128, 256, ...

This sequence has a factor of 2 between each number.

Each term (except the first term) is found by **multiplying** the previous term by **2**.