

Precalculus

Modeling and Series

The list below contains the specific *learning targets* for the unit on modeling and series. Before the unit test, you should be able to place a check next to each statement as being true.

- I can use technology to model data.
- I can make predictions using functions that model data.
- I can use sigma notation to describe a summation.
- I can identify and describe arithmetic sequences recursively and explicitly.
- I can calculate the partial sum of an arithmetic series.
- I can identify and describe geometric sequences recursively and explicitly.
- I can calculate the partial and infinite sums of a geometric series.

Textbook Assignments

The exercises below are from *Precalculus: A Graphing Approach* by Hungerford, Jovell, and Mayberry. These specific problems are the bare minimum that should be completed after each lesson, but you are encouraged to attempt more if needed.

- 1.5 Linear Modeling **pg 53: 9, 13, 15, 17**
- 4.3a Polynomial Modeling **pg 276: 5, 7, 9**
- 5.7 Exponential Modeling **pg 396: 11, 24, 25, 27**
- 8.4 Sinusoidal Modeling **pg 555: 11, 12, 13**
- 1.3 Arithmetic Sequences and Series **pg 29: 3-6 (recursive and explicit), 7-9, 31-34, 41**
- 1.6 Geometric Sequences and Series **pg 63: 1-8, 9-12 (recursive and explicit), 29-34, 37**

Assignments are subject to change in class.