Unit 18: Parametric Equations & Mathematical Induction

Content Area: **Mathematics**
Course(s): **PreCalc Trig H**
Time Period: **Semester 2**
Length: **2 weeks**
Status: **Published**

Standards - NJCCS/CCSS

CCSS.Math.Content.HSF-LE.B.5 Interpret the parameters in a linear or exponential function in terms of a context.

Enduring Understandings

Functions and relations can be represented using parametric equations.

Parametric equations can be useful in describing motion.

Mathematical induction is another platform to prove a statement which can be used to prove an infinite number of cases.

Essential Questions

What is a parametric equation and where are they commonly used?
How can we eliminate the parameter to get an x-y equation?
What is the framework of a proof by induction?
How can we prove statements by induction?

Knowledge and Skills

SWBAT graph parametric equations.
SWBAT graph parametric equations on a calculator.
SWBAT prove statements by induction

Resources

Precalculus with Limits

Authors: Aufmann, Barker, Nation

Graphing Calculator

www.desmos.com

www.flipgrid.com

www.graphfree.com