

# 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](http://www.desmos.com)

[www.flipgrid.com](http://www.flipgrid.com)

[www.graphfree.com](http://www.graphfree.com)