

Unit 02: Limits

Content Area: **Mathematics**
Course(s): **PreCalc Trig H**
Time Period: **Semester 1**
Length: **1 week**
Status: **Published**

Standards - NJCCS/CCSS

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| CCSS.Math.Content.HSF-IF.B.4 | For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. |
| CCSS.Math.Content.HSF-IF.B.5 | Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. |
| CCSS.Math.Content.HSF-IF.C.7 | Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. |
| CCSS.Math.Content.HSF-IF.C.7.b | Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. |
| CCSS.Math.Content.HSF-IF.C.7.c | Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. |

Enduring Understandings

A graph can be analyzed by looking at key features including continuity and end behavior.

Essential Questions

- What is a limit?
- How do you find the limit of a function?
- What criteria must a function meet in order to be continuous?
- How do you identify if a function is bounded?

Knowledge and Skills

- SWBAT define limit.
- SWBAT find limits approaching infinity.
- SWBAT find limits approaching constants.
- SWBAT define continuity.
- SWBAT identify and fix removable discontinuities.
- SWBAT identify the boundedness of a function.
- SWBAT use the graphing calculator to find the minimum, maximum, and zeros of a function.

Resources

Precalculus with Limits

Authors: Aufmann, Barker, Nation

Graphing Calculator

www.desmos.com

www.flipgrid.com

www.graphfree.com