

# Unit #2: Limits

Content Area: **Mathematics**  
Course(s): **PreCalc Trig A**  
Time Period: **Semester 1**  
Length: **3 weeks**  
Status: **Published**

## Standards

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MA.F-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.
MA.K-12.6	Attend to precision.

## Enduring Understandings

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Students will understand that limits determine the behavior of a graph, will determine when limits exist and when they do not exist, and will understand that it is directly connect to continuity of a graph.

Students will be able to differentiate between the limit as  $x$  approaches  $a$  and  $f(a)$ .

## Essential Questions

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What is a limit?

When do limits exist or not exist?

## Knowledge and Skills

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- Find limits from graphs.
- Find limits from expressions
- Define continuity.
- Identify 3 requirements for a function to be continuous.
- Define bounded.
- Determine if a function is bounded above or below.
- Find greatest lower bound & least upper bound of functions.
- Use a graphing calculator as a tool to find GLB, LUB, max, min, and zeros.

## **Transfer Goals**

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Recognize and solve practical or theoretical problems involving mathematics, including those for which the solution approach is not obvious, by using mathematical reasoning and strategic thinking.

## **Resources**

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1. Pre-Calculus with Limits - Aufmann
2. Trigonometry 6th edition - Lial
3. Classkick
4. Khan Academy
5. PurpleMath
6. KutaSoftware
7. CK-12
8. Quizlet
9. Albert I/O
10. Desmos
11. Problem Attic