

Flipped Calculus 1 at Binghamton

- Home
- Limits
- Derivatives**
- Applications
- Integrals

The Limit of a Function



Video

Section 1.5 in Stewart's Calculus.

Preclass Learning Objectives:

- The limit at an x -value describes the y -value the function “approaches” at that x -value.
- Graphical intuition for limits.
- Two-sided limits depend on both one-sided limits.

Classroom Slides PDF

Classroom Slides TEX

Tangents, Derivatives, and Rates of Change



Video



Video

Section 1.4/2.1 in Stewart's Calculus.

Preclass Learning Objectives:

- A rate of change describes how one quantity changes in relation to another quantity.
- Rate of change can result from averaging over an interval or finding a limit of averages approaching a single point.
- Tangent lines result from the limit of secant lines.
- A derivative is an instantaneous rate of change.

Classroom Slides PDF

Classroom Slides TEX

Limit Laws



Video



Video

Section 1.6 in Stewart's Calculus.

Preclass Learning Objectives:

- Algebraic limit laws.
- When direct substitution isn't allowable in calculating a limit try simplification, conjugation, or squeezing the function.

Classroom Slides PDF

Classroom Slides TEX

Continuity



Video



Video



Video

Section 1.8 in Stewart's Calculus.

Preclass Learning Objectives:

- Graphical intuition of continuity.
- Where limits align with actual values, a function is continuous.
- Types of discontinuities.
- Algebraic limit laws.
- Continuous functions cannot jump (Intermediate Value Theorem).

Classroom Slides PDF

Classroom Slides TEX

Laura Anderson and Joseph Brennan

From:

<https://www2.math.binghamton.edu/> - **Binghamton University Department of Mathematical Sciences**

Permanent link:

https://www2.math.binghamton.edu/p/calculus/resources/calculus_flipped_resources/limits

Last update: **2015/08/29 03:35**

