

AP[®] Calculus BC

Common Summer Assignment

Pinellas County Schools

This assignment was determined by the collective team of AP Calculus BC teachers in order to refresh the mathematical skills and knowledge necessary for success in the course.

Should you have questions or if you would like support with this assignment, please refer to your PCS student email account for information about the AP Summer Assignment Support Sessions (AP SASS) that will be held July 31-August 1 at various locations. You can access your student email account by going to www.office.com and using your PCS username and password to login.

Students will complete limit and differentiation topics from Khan Academy. Your teacher may have selected specific lessons to include/exclude. Please refer to the directions below.

1. Consult your AP Calculus AB teacher to see if there is a Khan Academy Class Code from your BC teacher.
2. Log into Khan Academy
 - a. If there is a class code, enter it
 - b. If there is no class code, go to Course: AP Calc AB
3. Work on the first two sections: *Limits and continuity* and *Differentiation: definition and basic derivative rules*. Review lessons that you need to remember, practice questions, take quizzes.

Up next for you: **Limits and continuity** 0/3400 Mastery points

Defining limits and using limit notation	Exploring types of discontinuities
Estimating limit values from graphs	Defining continuity at a point
Estimating limit values from tables	Confirming continuity over an interval
Determining limits using algebraic properties of limits: limit p...	Removing discontinuities
Determining limits using algebraic properties of limits: direct ...	Connecting infinite limits and vertical asymptotes
Determining limits using algebraic manipulation	Connecting limits at infinity and horizontal asymptotes
Selecting procedures for determining limits	Working with the intermediate value theorem
Determining limits using the squeeze theorem	Optional videos

[Get started](#)

Up next for you: **Differentiation: definition and basic derivative rules** 0/2300 Mastery points

Defining average and instantaneous rates of change at a point	Derivative rules: constant, sum, difference, and constant mul...
Defining the derivative of a function and using derivative not...	Derivatives of $\cos(x)$, $\sin(x)$, e^x , and $\ln(x)$
Estimating derivatives of a function at a point	The product rule
Connecting differentiability and continuity: determining whe...	The quotient rule
Applying the power rule	Finding the derivatives of tangent, cotangent, secant, and/or ...
Derivative rules: constant, sum, difference, and constant mul...	Optional videos