

### AP CALCULUS II SUMMER MATH PACKET INFORMATION

Dear AP Calculus II Student,

The Mathematics Department at Central Catholic High School would like to congratulate you on your placement in AP Calculus II for the fall of 2022.

AP Calculus II is a rigorous and demanding course taught on a college level in preparation for the AP Calculus BC Exam. AP Calculus II is a continuation of the AP Calculus I coursework in which students will study additional Calculus concepts with an emphasis on a multi-representational approach to problems. A Texas instrument graphing calculator (TI-89 or TI-Nspire CAS) is required for this course and should be brought to class each day, starting the first day of school.

In the fall we will use the first few weeks of school to quickly review some AP Calculus I before moving into the AP Calculus II curriculum. To help you prepare for this material, we have compiled a list of activities for you to complete using Khan Academy over the summer. Khan Academy is a free resource which provides learners access to practice problems and instructional videos on their website [khanacademy.org](https://www.khanacademy.org).

Please create a Khan Academy account or use your school Google account to log in to the website. Then complete the list of activities on the next page by the first day of school. Completion of these activities will count as the first seven assignments in your AP Calculus II class.

If you have any questions, please contact your AP Calculus II teacher via their school email.

Have a safe and relaxing summer. We look forward to seeing you in the fall.

Sincerely,

Kimberly Zoucha  
Co-Math Department Chair

## CREATING A KHAN ACADEMY ACCOUNT

1. Go to the website [khanacademy.org](https://www.khanacademy.org) and click “Login.”
2. Then you can click “Continue with Google” to link your Khan Academy account to your school Google account. Enter your school email ([first.last@cchsrms.com](mailto:first.last@cchsrms.com)) and password. You will use this method to log in each time you go to the website.

## KHAN ACADEMY ACTIVITIES TO COMPLETE OVER THE SUMMER

After logging in to your Khan Academy account, work on completing the following Khan Academy unit by clicking on the links below.

<https://www.khanacademy.org/math/get-ready-for-ap-calc/xa350bf684c056c5c:get-ready-for-parametric-polar-vector>

<https://www.khanacademy.org/math/get-ready-for-ap-calc/xa350bf684c056c5c:get-ready-for-infinite-sequences-and-series>

<https://www.khanacademy.org/math/ap-calculus-bc/bc-limits-new>

<https://www.khanacademy.org/math/ap-calculus-bc/bc-differentiation-1-new>

<https://www.khanacademy.org/math/ap-calculus-bc/bc-differentiation-2-new>

<https://www.khanacademy.org/math/ap-calculus-bc/bc-diff-contextual-applications-new>

<https://www.khanacademy.org/math/ap-calculus-ab/ab-integration-new#ab-6-8a>

Complete only the following sections for this unit:

- “Finding antiderivatives and indefinite integrals: basic rules and notation: common indefinite integrals” which is the **second section after Quiz 3**.
- “Finding antiderivatives and indefinite integrals: basic rules and notation: definite integrals” which is the **third section after Quiz 3**.
- “Integrating using substitution” which is the **first section after Quiz 4**.

For all of the units above except the last one, complete the Unit Test (see instructions below)

- After clicking on the link, scroll all the way down then click on “Start Unit Test.”
- If you score under 80%, please review the “Recommended lessons” then retake the Unit Test until you score 80% or higher.
- To review the lessons just close the Unit Test, then scroll back up to the recommended lesson.
- Under “Learn” you will find both lesson tutorial videos and interactive help web page articles
- When you’re ready, just scroll back down and click “Take Unit Test Again.”

Leveled up: 4 skills  
Leveled down: 2 skills  
No change: 0 skills

7/9 correct · 875 energy pts

The screenshot shows a dark blue background with white text. At the bottom, there is a small illustration of a notepad with a smiley face and a pencil.

Scale & reflect absolute value graphs	↑
Evaluate step functions	↓
Graph absolute value functions	↓
Piecewise functions graphs	↑
Shift absolute value graphs	↑
Evaluate piecewise functions	↑

### Recommended lessons

We recommend the following lessons based on your test performance:

- [Graphs of absolute value functions](#)
- [Piecewise functions](#)