

## MR. DOLCE

AP CALCULUS BC

**CONTACT** 

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Getting Ready for AP CAI CULUS BC

Dear Students.

You have survived distance learning in Pre-Calculus Honors! Well done! It's summer time and you're probably thinking about a lot of things other than math. That's okay, but I want to make sure that **some** math finds its way into your summer plans because we'll be working together on AP Calculus BC before you know it.

First, let me reassure you: If you're a little nervous about the BC Calc course, that's ok! It can be very challenging at times, but I promise that we can do it! I'll be here for you every step of the way – no matter what 2020-21 has in store for us. I know that there are certain topics that you learned remotely – we will need to address many questions and revisit some concepts.

I have decided to utilize IXL.com to help us get ready for the course. Here's what you need to do:

- Send me an email. This way I know that you've received this information and so that I can send you helpful documents before we meet in September. Just say hi and be sure to include your full name.
- 2) Log on to the IXL website (instructions on next page).
- 3) Complete the listed topics on IXL. I'm not setting a fixed SmartScore goal for you. You decide when you have mastered each topic.
- 4) Reach out to me via email with any questions, problems, concerns, or whatever! I'll do my best to reply in a timely fashion.

This review assignment will be valuable for you. It will get you into math-mode and it will help me to understand your strengths. Doing the assignment this way is new to me too, so please let me know if you are having difficulty or experiencing problems when you get going – we'll adapt together!

Best wishes for a happy, healthy summer,

Mr. Chris Dolce

## AP CALCULUS BC SUMMER ASSIGNMENT

## How to Access IXL

If you've used it before, you can log into IXL directly by using your existing username & password. (The username is typically your school network login followed by @con)

Otherwise follow these steps:

- 1) Go to the district website: ccsdli.org
- 2) Click on Student Resources
- 3) Click on Clever Portal
- 4) Click "Log in with Google"
- 5) Use your district login & password to log into Clever
- 6) Select IXL from the list of apps (or search for it if you don't see it right away)

## In IXL, you will complete the following topics (all under the Calculus heading):

- A1: Find values of functions from graphs
- o A3: Composition of functions
- o B2: Translations of functions
- C1: Convert between radians and degrees
- o C6: Find trigonometric ratios using reference angles
- C7: Inverses of trigonometric functions
- o C16: Graph sine and cosine functions

- o D1: Domain and range of exponential functions
- o E2: Find one-sided limits using graphs
- o E3: Determine if a limit exists
- o F6: Find limits involving factorization and rationalization
- G1: Find limits at vertical asymptotes using graphs
- G3: Determine end behavior of polynomial and rational functions
- o H1: Find the limit at a vertical asymptote of a rational function I

- 14: Find and analyze points of discontinuity using graphs
- I6: Determine the continuity of a piecewise function at a point
- o 17: Make a piecewise function continuous
- o L1: Find derivatives of polynomials
- L4: Find derivatives of trigonometric functions II
- o L5: Find derivatives of exponential functions
- L8: Find derivatives of radical functions

Some of these topics are quick and easy, but others will take time to master. Some of it can be done in your head, but you will definitely want to work out some on paper before you type your answers! You'll have to learn how to input algebraic answers, so take your time and be careful! A typo can really set you back! There are links within each topic for necessary skills and examples: use them!

REMEMBER, I'm only an email away! Don't wait until August 30th and don't hesitate to ask for help! Asking questions is not a sign of weakness, it's how we learn and grow!

I can't wait to meet you!



