

Stoney Creek High School

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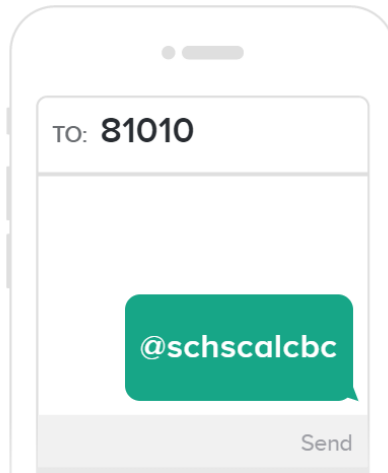
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Future AP Calculus BC Students:

Congratulations on electing to embark on the wonderful journey of advanced placement calculus! I won't lie to you: it is going to be a challenging road. We will cover many difficult topics rather quickly over the course of the year. This is, after all, **two semesters of college-level courses**. However, with the appropriate amount of focus and hard work, you will surely be successful! I can't wait to take this journey with you!

In this course you will see some great applications of the mathematics that you have learned over the years and you will be challenged to think about situations in new ways with new forms of mathematical models. FINALLY! Everything you learned in geometry, algebra, and pre-calculus will connect and make sense!

Before you leave for summer vacation, please take a moment to sign up for my Remind service in order to receive text message updates. I may send out occasional reminders throughout the summer and clarify any important information. If you are unable to sign up, please see me ASAP. Here is what you need to know:



Your summer assignment is in two parts. **First**, you should complete the attached assignment entitled "Are You Ready for Calculus?" I took time to analyze skills that you will need for the first few chapters of Calc BC, so please make sure you understand the 9 skills identified in this document. The solutions will be available online (posted to my website towards the end of the summer) so that you can check your work before coming in on the first day of school. **I will not be collecting this assignment, however, it's in your best interest to make sure you understand EVERYTHING in the packet so that you will be successful in Calc BC.** Completion of this assignment is incredibly important to ensure that you have the fundamental mathematical skills necessary to be successful in calculus. If you are unsure of any topic, you should refer to the appropriate video lesson on www.khanacademy.org or email me for help.

Second, you will watch a series of videos and complete some online activities about limits on <https://www.khanacademy.org/math/ap-calculus-bc/bc-limits-new> over the summer. This will give us a head-start on covering material to ensure that we can discuss the latter (more difficult) topics in greater depth. Over the summer, please **complete the quizzes up through quiz #4** in the in the [AP Calculus BC](#) course. If you would like to watch the videos associated with each topic for a refresher, that would not be a bad idea. The videos are optional, but you are responsible for knowing the information before the first day of school. To gain access to this list of videos, sign up as part of my class on the Khan Academy website. This will also allow me to see your progress. You will receive a grade on the first day of class for **completing the first four quizzes** on the Khan Academy website. *Most of this should be review from Pre-Calculus.*

In order to sign up for my class on Khan Academy, please read the following directions:

1. Create a free account at www.khanacademy.org (or log in with your existing account).
2. Visit khanacademy.org/coaches.
3. In the "Add a coach" field, enter the class code V58G372J.

My intention with these assignments is NOT to overwhelm you. In fact, it's the opposite. My goal is to ensure that you are mentally prepared for calculus by the time September rolls around. Trust me, you'll be much more successful (and less overwhelmed) this way. Here is a **suggested** timeline for work completion. Keep in mind that the assignments won't be officially due until the first day of class: Tuesday, September 3, 2019. However, you will likely regret it if you wait until the week before school to do all of them. ☺

- June/July: Relax and work on your $\frac{\sin}{\cos}$!
- August 1-15: Complete the "Are You Ready for Calculus?" Packet and watch any relevant refresher videos on Khan Academy. Feel free to work with a small group on these questions!
- August 16-31: Watch the Limit videos and finish quizzes #1-4 here: <https://www.khanacademy.org/math/ap-calculus-bc/bc-limits-new>

I know you want to spend your entire summer doing math, but please try to take a month to enjoy your time off! ☺

Feel free to contact me with any questions! I look forward to meeting all of you in the Fall!

Mr. Rizzi

Quizzes to complete. It will help to watch the videos and complete the practice questions before attempting each quiz.

Website: <http://www.mrrizzi.com/>

Email: crizzi@rochester.k12.mi.us

Limits and continuity: Quiz 1

Quiz · 7 questions from:

- Defining limits and using limit notation
- Estimating limit values from graphs
- Estimating limit values from tables

Limits and continuity: Quiz 2

Quiz · 7 questions from:

- Determining limits using algebraic properties of limits: limit properties
- Determining limits using algebraic properties of limits: direct substitution

Limits and continuity: Quiz 3

Quiz · 7 questions from:

- Determining limits using algebraic manipulation
- Selecting procedures for determining limits
- Determining limits using the squeeze theorem

Limits and continuity: Quiz 4

Quiz · 6 questions from:

- Exploring types of discontinuities
- Defining continuity at a point
- Confirming continuity over an interval
- Removing discontinuities