

## Rolesville High School AP Calculus Summer Assignment



Due Date: Monday August 28, 2016 This assignment will count as one MAJOR GRADE.

Dear Future Calculus Students,

Welcome to AP Calculus. I am excited you have chosen to take on this challenge next year. Calculus is a rigorous, yet rewarding, math course, and I look forward to helping you succeed. Many Calculus students are surprised by how much prior knowledge is required to do well in this class. Quite often, it is Pre-Calculus, not Calculus, which gives students the most trouble. To help you prepare for this course and make it through the "tedious algebra" ahead, I believe it will be beneficial for you to spend some time strengthening your skills over the summer months.

Your assignment this summer is to utilize the resources offered by Khan Academy (<u>www.khanacademy.org</u>) to prepare for success in Calculus. Follow the steps below to sign-up and begin your review.

- 1. Log into Khan Academy using your school email.
- 2. Once you are logged in, click on your name in the top right corner and select profile in the drop down menu that appears.
- 3. On the profile page, select the "edit profile" button in the top right corner. In the window that opens, type your full name into the box titled "real name." This will allow me to access your progress. Be sure to save this information.
- 4. Select the "coaches" tab on the profile page. In the window that appears, please type the class code 8KUEGC in the "add a coach" box. Then select the "join the class" button. My name should appear as your new coach.
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  5. Work through the list of skills on the attached page until you have reached the "practiced" level on each one. You can typically achieve this by answering 5 questions in a row correctly. If you get stuck on a skill, please utilize the video or hints. You may work through the skills in any order you wish.
- 6. To find an exercise, type it into the search bar or select the hyperlink available on my website (www.mathwithmsanthony.weebly.com).
- 7. Print out the attached checklist. When you reach the "practiced" level on a specific skill, write the date in the blank beside the skill. (You can check your level for a specific skill on your home page under "Progress.")
- 8. Turn in your completed checklist at the beginning of class on the first day of school.

Your grade will be calculated based on the percentage of "practiced" levels you receive for the list of skills below. For example, if you reach the "practiced" level on 15 of the 30 topics, you will earn a major assessment grade of 50%.

I will be available via e-mail to answer questions and provide assistance. My e-mail address is: <u>eanthony2@wcpss.net</u>. Please allow 3-4 days for a response over the summer. Also, make sure to e-mail me using your WCPSS e-mail address; otherwise, I am not permitted to respond. If for some reason you are locked out of your WCPSS account, when you email me from a personal account please cc: your student email. Additionally, you should try to work a minimum of 30 minutes each week. I will be tracking your progress, and will have prizes for students who work the hardest.

I hope you have a wonderful summer!

Sincerely,

Ms. Anthony



## Khan Academy Exercise Topic Checklist

1. Point-Slope Form	18. Trig values of special angles
2. Evaluate functions	19. Evaluate inverse trig functions
3. Evaluate composite functions	20. Solve exponential equations using logarithms: base-10 and base-e
4. Linear vs. exponential growth	21. Graphs of logarithmic functions
5. Recognize functions from graphs	22. Evaluate logarithms
6. Evaluate inverse functions	23. Evaluate logarithms (advanced)
7. Piecewise functions graphs	24. Properties of logarithms
8. Transforming functions	25. Rational exponents
<ul><li>9. Radical functions &amp; their graphs</li><li>10. Positive and negative intervals</li></ul>	26. Simplify rational exponent expressions
11. End behavior of polynomials	27. Simplify rational expressions: common binomial factors
12. End behavior of rational functions	28. Simplify rational expressions
13. Even and odd functions	(advanced)
14. Relative maxima and minima	29. Exponent Properties
15. Absolute maxima and minima	30. Sigma notation
16. Compare features of functions	

Name

\_\_\_\_17. Average rate of change: graphs & tables