

AP CALCULUS AB SUMMER ASSIGNMENT 2017-2018



Congratulations on your decision to enroll in advance placement calculus AB! Choosing to take AP Calculus may have been a difficult decision; however the intellectual stimulus and challenges that drive the curriculum will be a reward in and of itself, regardless of the outcome in May.

As students in an AP class you have chosen to hold yourself to higher standards. This is admirable, but carries with it the inevitable burdens of obligation. You are obligated to give more of your time to studying. You are also obligated, by virtue of being a future innovator and/or leader, to hold yourself to high ethical standards. To succeed in this course, you must commit to try every assignment, not copy answers from other students or the Internet, and never, ever give up, especially when it gets hard. If you can't make that commitment, I urge you to rethink your choice of this class.

In this packet, there is a supply list, a list of important dates, and your summer assignment. I will be at the AP Scholar Day on August 4th to answer questions over the summer assignment and any additional questions that you may have. If you would like to reach me over the summer, you may text or call me at 727-457-3865.

I look forward to an incredible year!

Mrs. Traci De Leon

Student Supplies:

- TI-Nspire cx CAS (**MAKE SURE YOU GET THE CAS MODEL!!!**)
 - There are school calculators that you may rent on a first come first serve basis
 - The fee to rent the school calculator is 2 reams of copy paper
- Barron's AP Calculus Book
 - You can purchase from JWMHS for \$5
- 1 Subject Spiral Notebook (College Rule)
- Paper and Pencils
- iPad Stylus

Important Dates:

- AP Scholar Day: August 4th, 2017
- Summer Assignment Due: Wednesday, August 16th, 2017
- TBD in April 2018: AP Calculus Practice Exam and Final Exam (3-hours after school)
- 2018 AP Calculus Exam: Tuesday, May 15th, 2018 at 8am

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Students choosing to take AP Calculus AB are expected to start the school year with knowledge of algebra, basic geometry, and trigonometry. Khan Academy offers videos and practice to help teach and refine math skills. Your summer assignment is to complete practice exercises on khanacademy.org. You must be logged into Mrs. De Leon's class to receive credit. The exercises are due on Wednesday, August 16th, 2017.

Steps to Join Mrs. De Leon's AP Calculus AB Class on Khan Academy

1. Sign up at khanacademy.org (or log in with your existing account)
2. Visit khanacademy.org/coaches
3. There, in the "Add a coach" field, enter the class code **MSHW77**

AP Calculus AB Summer Assignment

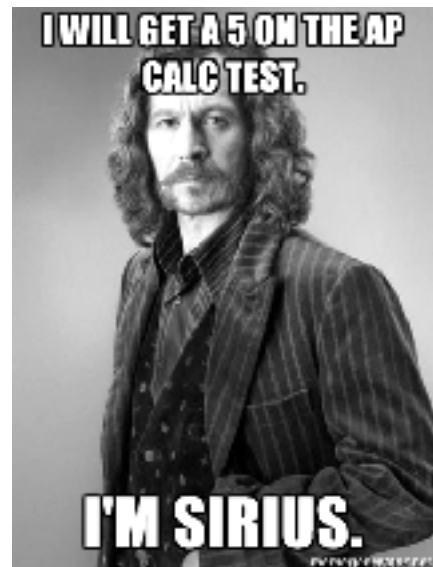
Visit www.khanacademy.org/math/ap-calculus-ab

Over the summer you need to watch the following videos or complete the following practice exercises:

Under Subject ALGEBRA 1:

- Functions
 - Maximum and Minimum Points
 - Intervals where a function is positive, negative, increasing, or decreasing
 - Average Rate of Change
- Absolute Value and Piecewise Functions
 - Piecewise functions
- Expressions with Rational Exponents and Radicals
 - Properties of exponents (rational exponents)
 - Advanced exponent & radical evaluation

(MORE ON NEXT PAGE)



Under Subject ALGEBRA 2:

- Manipulating Functions
 - Evaluating composite functions
 - Evaluate composite functions: graphs and tables
 - Find composite functions
- Polynomial Expressions, Equations, and Functions
 - Factoring polynomials: quadratic methods
 - Factoring polynomials: quadratic methods (challenge)
 - End behavior of polynomials
- Exponential and Logarithmic Functions
 - Evaluate Logarithms
 - Evaluate Logarithms (advanced)
 - Relationships between exponentials and logarithms
 - Use the properties of logarithms
 - Graphs of exponential functions
 - Graphs of logarithmic functions
- Trigonometric Functions
 - Trig Values of special angles

Under Subject TRIGONOMETRY:

- Unit Circle Definition of Sine, Cosine, and Tangent
 - Trigonometric angles of special angles
- Graphs of Trigonometric Functions
 - The graph of sine, cosine, and tangent