

## AP Calculus Summer Assignment

**Preliminaries:** This is the culmination of all the mathematics you have ever had!

- 1) You must be competent in basic algebra. The calculator will not always be available to you.
- 2) You must be competent in trigonometry. You **MUST** know the unit circle. Almost all problems are worked in radian measure, not degrees.
- 3) You must be willing to explain your answers. Just getting the correct number will not be sufficient for this course.
- 4) **You must own your own calculator and bring it to class everyday!**

Knowing how to use your graphing calculator is essential. If you do not currently own one, you need to buy one. A TI-83 is the minimum calculator needed for this course. The TI-89 or TI-nSPIRE (**gray version only - NOT BLUE**) is better as they both have CAS (computer algebra systems) which can handle symbolic manipulation. The gray version of the Nspire is difficult to find in the stores. If you already own a calculator, you do not need to buy another one. If you already own or choose to buy a different brand (Casio, HP, etc), be certain you know how to use it as I will only be teaching how to use a TI calculator. If you don't want to buy new, you will find good prices at pawn shops, at Cash Converters, and on Amazon and eBay.

If you don't know how to do something using your calculator, refer to your manual. If you have lost or misplaced your manual, you can download a free copy from the TI website: [www.education.ti.com](http://www.education.ti.com)

There are two main expectations for this course: that you will attend class and that you will take the AP exam in May. I will expect you to make attendance a priority. I will begin collecting money for the exam the first week of school. A minimum of \$20 will be due by the end of September.

---

Mrs. Harrison will be available off and on during the summer. You can contact me via email at [moharris@vbschools.com](mailto:moharris@vbschools.com) or [jharrison64@cox.net](mailto:jharrison64@cox.net). Be certain to SIGN YOUR NAME to your email and put MY name in your email. My husband teaches AP stats and AP computer science at PA and we share the cox address. Good luck! I am looking forward to next year.

## You have two options for this summer.

### OPTION #1

This option is mostly web based.

1. Take the test located at: <http://mdtp.ucsd.edu/test/> and print a copy of the result page. There are 40 questions on this test.
2. Take the test located at: <http://mdtp.ucsd.edu/crtest/> and print a copy of the result page. There are 40 questions on this test.
3. Print a copy of the worksheet located at:  
<http://www.mathbits.com/MathBits/StudentResources/PreCalculus/PreCalcCachingWorksheet.pdf>
4. Use the worksheet to record your answers for the problems beginning at:  
<http://mathbits.com/caching/precalccache1.html> and then print a copy of the last page – box #10 You will work 33 problems by the time you complete this activity.
5. Print a copy of the worksheet located at:  
<http://www.mathbits.com/MathBits/StudentResources/Algebra2/TrigCachingWorksheet.pdf>
6. Use the worksheet to record your answer for the problems beginning at:  
<http://mathbits.com/caching/trigopencache1.html> and then print a copy of the last page – box #10. You will work 29 problems by the time you complete this activity.
7. Take a 20 question multiple choice test. This can be done before school starts during the teacher work week (Monday 8/24 through Thursday 8/27) or one day during the first week of school – either during a study hall or after school (Tuesday – Thursday).

You may submit the printed copies in any of three ways:

1. Give them to one of the secretaries in the main office who will then put them in my mailbox.
2. Mail them to me:  
Mary Harrison  
Salem High School  
1993 Sundevel Drive  
Virginia Beach, Va. 23464
3. Scan and email them to me at: [moharris@vbschools.com](mailto:moharris@vbschools.com) or [jharrison64@cox.net](mailto:jharrison64@cox.net) . Be certain to include your name, my name and topic in the email.

You must take the multiple choice test under my supervision.

If you need help with the web assignments, the University of Michigan has a really good website with practice problems and tutorials at: <http://prep.math.lsa.umich.edu/pmc/> Enter the module and select any topic, or test your overall knowledge with the diagnostic test at the end of the list of topics.

**OPTION #2**

Come to *Math Camp*.

This will be held 8/10 – 8/14 from 9 AM – 11 AM in room 123.

<b>Option</b>	<b>Advantage</b>	<b>Disadvantage</b>
<b>Computer work</b>	Set your own pace	Lots of work to do
	Good if you already know the material	Graded for correctness
		Frustrating if you don't remember the topics
		No reminders for due dates
<b>Option</b>	<b>Advantage</b>	<b>Disadvantage</b>
<b>Math Camp</b>	Teacher will review these concepts	Might interfere with summer plans
	Chance to learn capabilities of your TI calculator	You have to let me know if you are going to attend by 8/1
	Automatic 100 on the quiz if you attend every day and fully participate	Can't sleep in and it's all week

**NOTE:** You may NOT combine a couple of days of math camp with some computer work. It's an either/or situation.

Regardless of which option you choose, remember you can always contact me through email using my school address: [moharris@vbschools.com](mailto:moharris@vbschools.com) or my home address: [jharrison64@cox.net](mailto:jharrison64@cox.net)