May 18, 2015

Dear AP Calculus Students,

Welcome to the most exciting class in high school – AP Calculus! I’m already looking forward to the year we will get to spend together studying the beauty of calculus.

There are three major tasks you must accomplish this summer:

1) Prepare psychologically. Each day, repeat (out loud) to yourself:
   - I love AP Calculus!
   - I am a girl who can do math!
   - I will get the high FIVE!

2) Prepare intellectually.
   - Purchase the CPM textbooks ASAP, as you will need these to complete summer work. You will also need to have your graphing calculator and plenty of graph paper.
     - The easiest way to purchase your text is to go to the CPM website (www.cpm.org) and click on “Order Student Books and eBooks” in the left sidebar. Click on the Calculus 2nd ed. text. CAREFUL – this is the e-book; you will want to purchase the two-volume softcover set, which is on the bottom of the next page (cost: $90; includes two textbooks (Vol.1 and Vol.2) and e-book license). (ISBN: 9781603280426)
   - There are sixteen summer assignments to complete over the next few months. Develop the virtue of consistency over the summer by making a plan for review.
     - The summer assignments cover Chapters 1 and 2 of your text book, which is basically a review from Precalculus.
     - All assignments must be completed neatly on graph paper, showing all work. They will be graded for completion, neatness, and accuracy. Answers are included in the back of your book and online through Homework Help, so I will definitely be looking not only for a final answer, but also to see how you got to your final answer. A stand-alone answer will not often receive full credit and will sometimes receive no credit. All summer assignments must be submitted online by the deadline listed. Please let me know well in advance if you have a valid reason why you will not be able to meet the given deadlines.
     - I would be happy to pre-grade, give feedback, and provide an opportunity to do corrections for full credit for each assignment IF it is submitted by or before the deadline. Final corrections for each assignment must be submitted within a week of the given deadline.
     - We will have a test over Chapters 1 and 2 on the first day of class in August. An optional review time will be scheduled sometime in the week before this.
All summer work can be found and submitted through our class page on the school portal. Most of the assignments involve watching and taking notes on videos that I have pre-recorded, then submitting notes and homework problems.

If you have any questions, please feel free to e-mail me through your school e-mail account. My e-mail address is: srcanne@stcecilia.edu. If there are any changes/updates to the summer work, I will notify everyone through school e-mail addresses, so please be sure to check your school e-mail occasionally throughout the summer.

3) Create an AP Calculus community – the class is much more fun when you can study with one another!
   - Create an AP Calculus AB and AP Calculus BC page on Facebook
   - Schedule some group review/study sessions with your classmates over the summer
   - Take responsibility for the AP Calculus class – it is YOUR class; make it fun!
   - Pray for all AP Calculus students and teachers

Have a wonderful, grace-filled summer!

In Christ,

Sister Cecilia Anne, O.P.
AP Calculus BC  
Summer Work 2015

All summer work can be submitted through our class portal on the St. Cecilia Academy website. The first assignment can be submitted on the Precal Honors portal. The AP Calculus portals should be available by early June, so later assignments can be submitted there. If you experience technical difficulties, know that you can always e-mail me as a back-up. (Please use your school e-mail account and proper e-mail etiquette.)

For the video portion of assignments, you may click on the hyperlinks for each video below. Please note that you will need to have the original digital copy of this page in order to access the hyperlinks. Please take notes as you watch each video. Each assignment submission should include notes from each assigned video and all assigned homework problems. Homework problems must show all work. All submissions should be neat and written on graph paper. After submitting an assignment, please be sure to check back on it to see my comments or corrections.

Assignment 1 (Due June 1): Photo, Text book, Test Scores (ACT/SAT)
   Photo: Please submit nice close-up photo of yourself
   Text book: Please submit something showing that you’ve at least ordered a text
   Test Scores: Please download, complete, and submit the form listing test scores received to date. Please send updates to me, either via portal dropbox or e-mail, as they are available

Assignment 2 (Due June 29): 5 Videos, 2 HW Problems
   Videos: Graphs, 1-3, 1-4, 1-5, 1-10
   HW: 1-2, 9

Assignment 3 (Due July 1): 3 Videos, 8 HW Problems
   Videos: Math Notes: Interval and Set Notation, 1-14, Trig Review
   HW: 1-15, 16, 17, 20, 23, 24, 25, 26

Assignment 4 (Due July 3): 1 Video, 5 HW Problems
   Video: Math Notes: Horizontal Asymptotes
   HW: 1-36, 37, 40, 41, 42

Assignment 5 (Due July 6): 2 Videos, 7 HW Problems
   Videos: 1-44, 1-50
   HW: 1-48, 53, 54, 55, 56, 58, 59

Assignment 6 (Due July 8): 3 Videos, 8 HW Problems
   Videos: 1-61, Math Notes: Inverse Functions, Math Notes: Even and Odd Functions
   HW: 1-71, 72, 73, 76, 83, 84, 86, 90

Assignment 7 (Due July 10): 1 Video, 10 HW Problems
Assignment 8 *(Due July 13)*: 2 Videos, 9 HW Problems

Videos: Math Notes: Displacement vs. Distance, 1-151

HW: 138, 139, 142, 154, 156, 157, 158, 159, 160

Assignment 9 *(Due July 15)*: 4 Videos, 11 HW Problems

Videos: 1-176, 1-177, 1-178, Math Notes: Vocabulary of Motion

HW: 1-167, 168, 172, 175, 181, 187, 189, 193, 199, 201, 203

Assignment 10 *(Due July 17)*: 1 Video, 5 HW Problems

Video: Math Notes: Sigma Notation

HW: 2-5, 8, 9, 10, 13

Assignment 11 *(Due July 20)*: 1 Video, 5 HW Problems

Video: 2-19

HW: 2-21, 23, 26, 39, 41

Assignment 12 *(Due July 22)*: 3 Videos, 8 HW Problems

Videos: Math Notes: Limits, Types of Discontinuity, 2-60

HW: 2-52, 55, 56, 61, 63, 64, 66, 67

Assignment 13 *(Due July 24)*: 3 Videos, 8 HW Problems

Videos: Math Notes: Continuity, Math Notes: Intermediate Value, 2-90

HW: 2-73, 74, 79, 91, 94, 97, 99, 101

Assignment 14 *(Due July 27)*: 5 HW Problems

HW: 2-110, 114, 118, 120, 121

Assignment 15 *(Due July 29)*: 2 Videos, 3 HW Problems

Videos: Math Notes: Local Linearity, Math Notes: Trig Limits

HW: 2-128, 129, 131

Assignment 16 *(Due July 31)*: 1 Video, 5 HW Problems

Video: Newton, Leibniz, and Usain Bolt

HW: 2-139, 140, 142, 143, 144