

AP Calculus Summer 2018 Assignment

Because the Precalculus classes were so well prepared and passionate about the topics and their connections, we were able to cover the complete curriculum. Therefore, the only tasks AP Calculus students have to complete are to finish the three sections on Conic Sections and to review the major concepts of Algebra and Precalculus.

From the Precalculus textbook, students will be responsible for completing the three section listed below on Parabolas, Ellipses, and Hyperbolas. A PDF copy of Chapter 8 from the Precalculus book will be available on the PRECALCULUS Classroom throughout the summer. Many answers are provided for you in this copy of the textbook, however, math is not really about the answer. You will have to provide the complete solution.

From the Precalculus book:

- Section 8.1 (Parabolas): #s 3 – 48 (mults of 3), 53, 54, 59
- Section 8.2 (Ellipses): #s 3 – 42 (mults of 3)
- Section 8.3 (Hyperbolas): #s 3 – 45 (mults of 3), 51

From the Calculus textbook (*Calculus- Graphical, Numerical, Algebraic*, 3rd edition by Ross L. Finney, Franklin D. Demana, Bert K. Waits, and Daniel Kennedy), students will be responsible for reviewing all of Chapter 1, “Prerequisites for Calculus” as well as Appendix 5.1 (Pgs 58 – 589) on “Conic Sections.” Then students are to complete the following 2 assignments and be ready for a **TEST** on these topics during the first week of the school year.

From the AP Calculus book:

- Read and review the topics covered in the following sections of Chapter 1 – *Prerequisites for Calculus*. Do odd problems necessary to practice with the concepts.
 - Section 1.1: Lines
 - Section 1.2: Functions and Graphs
 - Section 1.3: Exponential Functions
 - Section 1.4: Parametric Equations
 - Section 1.6: Trigonometric Functions
- Complete the following assignment:
 - Pgs 56-7 / Chapter 1 Review #s 2 – 40 even, 45 – 70 all
- Read and review Conic Sections in Appendix 5.1, Pages 578 – 589 and complete the following assignment:
 - Pgs 588-9 / 1, 3, 5, 7 – 14 all, 15 – 23 odd, 34 – 37 all
 - For #37, the volume of a *paraboloid* is $V = \frac{\pi}{2}hr^2$

You may email me with questions throughout the summer at: tcraig@oxps.org

Have Fun

Have a Great Summer

Be ready for the course that puts all of your mathematical knowledge together.