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May 25, 2022

Memorandum For: Students enrolled in Honors Precalculus for School Year 2022-2023

Honors Precalculus is a rigorous course designed to prepare you for the BC Calculus Advanced Placement course. Students taking this course are expected to have excellent work habits and a solid foundation in Algebra I, Geometry, and Algebra II skills. Unlike the non-honors Precalculus course, we will not spend class time reteaching concepts that you should have already mastered.

Because we will not be reviewing Algebra II concepts, we expect that you will brush up on these concepts yourself prior to the commencement of the school year. Many of the Algebra concepts that you need to have mastered are covered in Chapter 1 or the Appendix of our Honors Precalculus textbook. They include topics such as:

- The Rectangular Coordinate System
- Graphs of Equations in two variables including circles
- Curve Fitting using the regression function on the graphing calculator
- Setting up and solving equations and inequalities
- Factoring (including grouping and sum/difference of cubes)
- Synthetic Division
- Word problems: interest/mixture/uniform motion/constant rate

We will begin the school year by doing a course/teacher introduction and answering any of your questions on Chapter 1/Appendix topics. **On Thursday, September 1, you will be tested on the Algebra II topics. This exam will be your first test grade for the 1st quarter.** To help prepare you for this test, we have prepared a summer assignment over these topics. **It will be collected on the first day of class. This assignment will also count as approximately 10% of your homework grades for the 1st quarter and is due on the first day of school (Tuesday, August 31) .**

From my over 10 years experience of teaching this course, I can tell you that the students who READ the textbook and do the assignment as described do well on the test – the students who only do the problems generally do poorly and then spend all of the 1st quarter in a catch-up mode trying to improve their grade.

Please see Mr. Buck during the week of final exams to get issued a textbook and problem set. If you aren't able to do this, you can come into the main office during the summer to pick up these up (with prior notification) or you can email me and I will send you scans of the relevant book portions.

For this class, you are required to have a TI-83+ or TI-84 graphing calculator for the course and a 1" 3-ring binder. I expect all work to be done in pencil and work to be shown on all homework assignments.

I hope you have a wonderful summer – do lots of fun things and come back rested and ready for a great school year!

Eliz A Wood

Elizabeth A. Wood
Mathematics Teacher
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Honors Precalculus Summer Assignment

Dear Student,

In order to be successful in mathematics, you need to learn how to **read** a mathematics textbook. It is a learned skill and although it will not always be the most interesting reading, it will help you understand the concepts much better than by simply listening to your teacher in class. By reading the textbook, you will know what to expect in class and can then spend your time listening and understanding rather than frantically copying down notes. You will also be able to ask your teacher specific questions on areas you do not understand. We have developed this assignment with these ideas in mind.

You will find out that much of your success in this course – and in life – will come from what you put into it. Therefore, you should know that most **of you can probably do this assignment without doing the reading, but you will be shortchanging yourself by doing so.** Start off strong by making sure that you are familiar with your textbook and that you thoroughly understand these Algebra II topics by doing this assignment as instructed.

To do this assignment, you should schedule yourself about 30 minutes a day starting August 1st. This way the material will be fresh in your mind when school begins.

Suggested Itinerary:

Day 1	I, II, III
Day 2 – 9	Read one Appendix section each day doing each of the "Now Work Problem..."
Day 10	IV (section 1.1)
Day 11-14	Read one section (1.2, 1.3 , 1.4, and 1.5) each day doing each of the "Now Work Problem..."

I. Scan the first 3 pages titled "Prepare for Class", "Practice", and Review" for tips about how to use your textbook most effectively. Then scan pg vii-xi "Contents" to get an idea of the topics covered in the course. You should recognize many of them from Honors Algebra II! We will be doing every chapter in this book.

II. Read pg. xxiv "To the Student". There are some good tips here.

III. Read pg 951 – 959 Appendix AI. "Algebra Review" Several of the example problems end with "Now work Problem...." Solve these problems. (#9, 17, 29, 33, 43, 49, 51, 65, 71, 81, and 77.) The answers to these problems are in the back of the book. Check your answers after doing each problem! If you get a problem wrong, go back and try to find your mistake. Then try a different odd numbered problem (checking the answer in the back of the book to see that you did it correctly) to ensure that you understand and have mastered that particular concept.

IV. Read Section 1.1 on pg 2-7; make sure you really understand how to find a graph window as described on page 3. Also, it is very important that you understand how to represent inequalities using set notation instead of < or > signs. Your book's authors use this notation throughout the entire textbook! As you read, do the "Now Work Problem..." Again – **check your answers in the back of the book** as you do the problems! Don't waste your time doing the problems if you're not going to bother seeing if you did them right. All of us will occasionally get seemingly "easy" problems wrong – only by checking our answers will we become aware of our common or careless mistakes and be able to improve ourselves by not making those again.

Don't get discouraged if you have problems as you go along. Just go back and read the text and try the problem again. The worked out solutions are #18 in the online resource package. You can also watch videos on YouTube or Khan Academy for extra review or you can email me at **ewood@johnbapst.org** and I can set up a zoom session with you to help you out.

Mrs. Wood