AP CALCULUS BC

SUMMER PACKET 2022 – 2023

CONWELL-EGAN CATHOLIC HIGH SCHOOL

All students who are enrolled in a mathematics course for the 2022 – 2023 school year have a Mathematics Summer Packet to complete.

Within the first few days of your AP Calculus BC course, you will be assessed on the prerequisite skills outline in this packet. This summer assignment is a review and exploration of key skills that are necessary for success in your 2022 – 2023 mathematics course as well as future high school mathematics courses.

The assessment will count as a full test grade in your first quarter average.

All summer packets are due on the Friday of the first full week of school.

Materials Needed:

- Copybook
- 3rd edition of Ron Larson's Precalculus with Limits textbook
- Glencoe Algebra 2
- TI graphing calculator
- Writing instrument, eraser, and highlighter
- Function Reference Sheet, Errors and the Algebra of Calculus, and Paul Dawkins Cheat Sheets

Your assignment:

- Read each of the assigned sections.
- In your copybook, copy all key terms/concepts and examples.
- Complete all checkpoint questions.
- For the assignments in the algebra 2 text, complete the check for understanding exercises.

A. *PARTIAL FRACTIONS*

7.4 Precalculus text (yellow) – Partial Fractions

B. *VECTORS*

6.3 Precalculus text (yellow) – Vectors

6.4 Precalculus text (yellow) – Vectors and Dot Products

Chapter 11 Precalculus text (yellow) – Analytic Geometry in Three Dimensions

- The Three-Dimensional Coordinate System
- Vectors in Space
- The Cross Product of Two Vectors
- Lines and Planes in Space

C. *SEQUENCE AND SERIES*

9.1 Precalculus text (yellow) – Sequence and Series

Chapter 11 Algebra 2 – Discrete Mathematics

D. *PARAMETRIC EQAUATIONS & POLAR COODINATES*

10.6 Precalculus text (yellow) – Parametric Equations

10.7 Precalculus text (yellow) – Polar Coordinates

10.8 Precalculus text (yellow) – Graphs of Polar Equations

10.9 Precalculus text (yellow) – Polar Equations of Conics

*You are expected to attempt all *Check Point* questions. After three (3) attempts, if you are unable to complete the exercise, you should leave space to complete the problem after we discuss the topic in class.