Dear Cadet Candidate:

On behalf of your future math instructor and the entire team in the Department of Mathematical Sciences, congratulations and welcome to the West Point Class of 2023! We look forward to providing you a challenging course of study to enable success in your math, science, and engineering courses. What follows in this letter are expectations, resources, and recommendations to prepare you for your mathematical course of study.

REQUIRED KNOWLEDGE: Your success in college-level math, science, and engineering courses depends on a firm understanding of pre-calculus material. All students entering the academic program at West Point must possess a core set of math skills to effectively advance their learning. Our experience indicates that if students lack a good understanding of these concepts, then they will struggle to perform to their full potential. A list of these mathematical skills and concepts can be found under the link titled “Required Knowledge for Entering Cadets” at: [www.westpoint.edu/academics/academic-departments/mathematical-sciences/prospective-students](http://www.westpoint.edu/academics/academic-departments/mathematical-sciences/prospective-students).

Also, at this website you will find a link titled “Useful Formulas.” You are expected to recall, fully understand, and employ all information listed on pages 1-2 throughout your mathematics curriculum at West Point. This information should be second nature to you and available for immediate recall.

FUNDAMENTAL CONCEPTS EXAM: To assess a student’s knowledge of fundamentals, the Department of Mathematical Sciences administers a fundamental concepts exam (FCE) to all new cadets during Cadet Basic Training. Cadets who demonstrate proficiency (indicated by a score of 80% or better) on the FCE during Cadet Basic Training will have met the requirements. Those who do not will be required to take the FCE during the first month of the fall semester. Failure to pass the FCE during the fall semester will require remediation until proficiency has been demonstrated.

Your performance on this test also plays a role in determining your initial placement in the core math program at West Point. Most students will be enrolled in MA103 (Mathematical Modeling and Introduction to Calculus). Many will have the opportunity to enroll in MA153 (Mathematical Modeling and Introduction to Differential Equations). Students who demonstrate lower levels of fundamental proficiency may be placed in MA100 (Pre-Calculus) during their first semester. Enrollment in MA100 requires students to take a minimum of four math courses as part of the core graduation requirement instead of the standard minimum of three math courses. This almost guarantees the student will have to take courses during summer school or over-load in future semesters.

SELF ASSESSMENT: The Prospective Students website contains several links to practice exams (along with solutions), worksheets, and resources to assist you in reviewing the required math knowledge. At some point before your arrival, we strongly suggest that you self-administer at least one of these exams to assess your abilities. You should seek remedial assistance in any area in which you feel like your skills are weak.

The requirement to meet the defined level of proficiency on fundamental skills should not be taken lightly. Time spent mastering these skills now will save much time during the first semester when you will need it for other courses and will potentially help you avoid having to enroll in summer school classes. Please feel free to contact me if you have questions or concerns with information contained in this letter at (845)938-7436 or joseph.lindquist@westpoint.edu. We wish you the best of luck as you make final preparations for this incredible 47 month journey at West Point.

Sincerely,

JOSEPH M. LINDQUIST
Colonel, US Army
Plebe Math Program Director