Dear Parent or Guardian:

Greetings from the GMHS Math Department. We have received many questions about the need for graphing calculators in high school math classes. The math department would like to take this opportunity to provide some information about calculators.

Why does my child need a graphing calculator?

*Although students do have access to graphing calculator emulators on their cell phones and chromebooks, these devices **may not** be used on tests or quizzes in GMHS math classes, nor on the PSAT, SAT or ACT exams.* Please note, 10th and 11th graders take the PSAT at GMHS in October each year. 11th graders take the SAT and 9th graders take the PSAT at GMHS in April each year. Many juniors and seniors also opt to take the ACT exam at least once.

Graphing calculators have a display which allows students to enter equations and see the corresponding graph in a viewing window. Graphing calculators can also determine statistical measures, perform regression and be programed to perform a variety of routines, which support learning in many math and science classes. It is a powerful tool that can help your student better understand many math concepts. It is also important that your student get familiar with a calculator and its features, so they are not trying to learn the features on the day of PSAT or SAT testing.

Which courses require a graphing calculator?

Instructors communicate the calculator requirements for their particular course to their students at the start of each school year. **Students in upper level math courses** such as Algebra II, Applied Algebra II with Trigonometry, PreCalculus, Calculus,   AP Calculus, AP Statistics, and Intro to Statistics **need to have a graphing calculator**. This is an integral tool used in these courses.

Geometry students should **at least have a scientific calculator** with sine (SIN), cosine (COS) and tangent (TAN). Students in **Algebra I**, should at a **minimum**, have a **four function calculator**.

If your student is in Geometry or Algebra I, then you can decide if you want to invest in a graphing calculator, prior to your student taking Algebra II. Please remember, however, your 9th and 10th grader will be taking the PSAT and might benefit from familiarity with a graphing calculator.

Which calculator should I purchase?

	TI-83 Plus	TI-84 Plus	TI-84 Plus CE
Permitted on Tests			
SAT*	●	●	●
AP*	●	●	●
PSAT/NMSQT*	●	●	●
ACT*	●	●	●

Note: Feedback from students and important info about other TI-series calculators.

- **TI-84 CE:** Wonderful graphics, but may run a bit slower. Some students lose the charging cords or come to class without the calculator charged. We do have some charging chords and students can charge these devices by plugging into a chromebook.

- **TI-89 series:** An engineering based calculator which uses a different menu driven operating system. Difficult for some students to follow these menus versus the TI-84 commands, which GMHS math teachers display on their mimio boards. **Also, TI-89 and TI- Inspire calculators are not allowed on the ACT.**

- **TI-83 series:** If your child already owns a TI-83 series calculator, DO NOT feel you need to purchase another calculator. A TI-83 series will be able to do most needed functions.

Where do I buy a calculator?

Any of the major chain stores (Target, WalMart, Staples, Office Max, etc.) sell graphing calculators. You can also find calculators on ebay and Amazon. There are usually sales on graphing calculators over the summer. Please note, we do not have classroom sets of graphing calculators, so it is critical for your student to have this tool.

If you have any questions about the curriculum, our use of technology or your individual student's needs, please feel free to contact your student's instructor directly. Thank you for your support. We look forward to working with you to help your student grow their math capabilities during their time at GMHS.

Best regards,
The GMHS Math Department