SHMS Mathematics Department

Calculator Philosophy

Understanding that a comprehensive mathematics curriculum should help students learn to use calculators, computers, and other technological tools as a part of learning mathematics, the Mathematics Department of Strath Haven Middle School believes that calculator usage should be an integral part of mathematics education in our schools. The Technology Principle of the Standards document of the National Council of Teachers of Mathematics (NCTM) states: ". . . mathematics instructional programs should use technology to help all students understand mathematics and should prepare them to use mathematics in an increasingly technological world."

The NCTM makes it clear, however, that such tools do not *replace* the need to learn basic facts, to compute mentally, or to do reasonable paper and pencil computation. We put forth the following information so that students, parents, and teachers will agree on the use of technology in the classroom.

1. We encourage the appropriate use of technology in the classroom. Students need to consider when the use of mental mathematics, paper and pencil, or a calculator is appropriate.
2. The calculator requirement for mathematics courses at Strath Haven Middle School differ by grade level.
    - 6th/7th grade: TI-30XIIS
    - 8th grade: TI-83 or TI-84 graphing calculator

    ALL calculators should be engraved/labeled with the student's name and a record kept of the registration number (graphing calculators only).

3. Understanding that the purchase of a graphing calculator (8th grade) represents a considerable expense to the student, the Mathematics Department agrees that a calculator purchased will be useful to the student throughout high school. Students will not be expected to purchase an expensive upgrade for a later course.
4. Students will be required to show all work and be able to explain how they arrived at a solution on assignments.
5. Students will be required to show understanding on tests with and without a calculator.
6. The calculator should not replace fundamental understanding.