M-STEP Calculator Policy

Online and Paper/Pencil Testers

Mathematics

Students in grades 3, 4, and 5 are **not** allowed to use a calculator on ANY item in the mathematics assessment, as the use of calculators at these grade levels changes the construct of the items and what they are intended to measure. All students must abide by this no-calculator-allowed policy, even students whose IEP or 504 Plan specifies otherwise. **The use of a calculator at grades 3, 4, or 5 is considered a nonstandard accommodation.** Nonstandard accommodations render the assessment invalid.

Science

Students in grade 5, 8, and 11 are allowed to use a calculator on any item in the science assessment.

Online Testers

On grades 6 and 7 mathematics and grades 5, 8, and 11 science assessments, students will use the calculator embedded within the online delivery engine. The calculator will appear in the toolbar when items allow its use; it will not appear when items do not allow its use.

There are two types of embedded online calculators:

- Basic calculator - science grade 5 and mathematics grade 6
- Scientific calculator - science grades 8 and 11 and mathematics grade 7

The Office of Educational Assessment and Accountability (OEAA) has developed resources for online testers to help prepare them for online testing. One of the resources is an online calculator practice tool. It is recommended that online testers visit the practice environment to see sample items and familiarize themselves with the online calculator tool. To practice using the M-STEP online calculators, go to the Online Tools Training (OTT) portal (https://portal.te.drcedirect.com/MI) using the Google Chrome browser.

Paper/Pencil Testers

On grades 6 and 7 mathematics and grades 5, 8 and 11 science assessments, students will use a handheld calculator.

Calculators are allowed on all items of the science assessments. Calculators are allowed only on Part 2 of the mathematics assessment.

Mathematics test booklets are divided into two parts. Part 1 of the paper/pencil mathematics assessment is considered non-calculator, and students must not have a calculator within reach. Part 2 of the paper/pencil mathematics assessment allows the use of a calculator. Once students start Part 2, they are not allowed to return to the non-calculator items on Part 1.

Since external hand-held graphing calculators are programmable, there is a potential of a security breach. All programmable calculators must be set to TEST mode during the testing session for both mathematics and science assessments.

Types of hand-held calculators:

- Basic calculator - science grade 5 and mathematics grade 6
- Scientific calculator - science grades 8 and 11 and mathematics grade 7

Important Notes

Alignment

The operational items on all of the assessments have been field-tested and are aligned to Michigan's standards.

Fairness

The issue of fairness between online testers and paper/pencil testers with regard to calculator usage has been raised. The OEAA decided not to burden schools by requiring them to purchase calculators specifically for this assessment as a possible one-time use. Some schools may not have the grade-specific calculators for their paper/pencil testers to use. The OEAA has reviewed every item to determine if the use of an above-grade-level calculator gives those students an advantage. Students will not be advantaged or disadvantaged based on using an above-grade calculator on the assessment.

Managing Online Testers and External Hand-held Calculators

The OEAA prohibits online testers from using external handheld calculators instead of the embedded online calculator. The only online testers who may use an external calculator are those students whose IEP or Section 504 Plan specifies the use of a special adaptive calculator.