Calculator Use Policy

In order to create a test administration that provides every student with a fair and equitable assessment opportunity, KDE has developed a calculator policy. Following this policy will ensure that all students have a measure of their academic achievement that is comparable to all students across the state.

Calculator Use Policy for Online Testing

Desmos calculators will be available for students to use in TestNav for the K-PREP. There are three calculators available – four-function, scientific and graphing. Students will have access to the three types of calculators depending upon the grade level and the question. Elementary (3-5) grades will have access to the four-function calculator; Middle (6-8) grades will have access to the scientific calculator; and High (10, 11) grades will have access to the graphing calculator. Note: Students taking the science test at grade 11 will have use of the scientific calculator. The calculator will appear on the online screen on certain questions that allow a calculator when the Calculator button is selected. To move the calculator, students will select the calculator and drag it. Students can select the buttons or use their keyboard to use the calculator. Selecting the Calculator button again closes the calculator.

The Desmos online calculators are available for free to all students now and throughout the school year. Tutorial videos are available for practice and guidance. They may be used by students during instruction to plot functions, create tables, make graphs, etc. at Desmos.com.

Providing the online calculators within the TestNav system further standardizes the assessment. All students using the same calculator adds to the validity of Kentucky’s state test. Valid inferences about students’ knowledge and/or skills can be made.

Only students that receive specific accommodations or accommodated kits can use a hand-held calculator. If a student is taking the test using Braille or Large-Print, then they may use a hand-held calculator from the approved calculator policy.

Note: In the unlikely event that the online calculator should not function during a test administration, an approved hand-held calculator should be provided to the student.

Calculator Use Policy for State Testing

The KDE calculator policy applies to all paper-based state assessments, and to all students, including those who receive test accommodations with an Individual Education Program (IEP) or 504 Plan.

In some instances, a student with an IEP or a 504 Plan might use a device not listed on the approved calculator list. The District Assessment Coordinator (DAC) must submit a written request to the Office of Assessment and Accountability (OAA) for permission allowing a student to use the device not included on the list. OAA will consider the request, which will include reviewing IEPs or 504 plans, to determine if the device is part of the plan and whether it would provide an unfair advantage on state assessments. Each grade level has a calculator and no-calculator section, thus even permitted calculators should only be used within the appropriate section of testing.

Prohibited Computer Applications, Programs and Documents

During test administration, all applications, programs or documents built-in, created or downloaded on calculators are prohibited for use on state assessments. This includes all applications and programs with a computer algebra system (CAS)¹. Some permitted calculators have suppression functions, such as Press to Test, that disable applications and use of documents for testing purposes. If available, the suppression function should be used on permitted calculators to deactivate prohibited applications and programs². In addition, all stored documents must be removed.

OAA: Calculator Policy: February 2021
Prohibited Calculators
The following types of calculators are prohibited:

- calculators with built-in or downloaded computer algebra system functionality
  Prohibited calculators in this category include:
  - Texas Instruments: All model numbers that begin with TI-89 or TI-92 and the TI-Nspire CAS—Note: The TI-Nspire (non-CAS) is permitted.
  - Hewlett-Packard: HP Prime, HP 48GII and all model numbers that begin with HP 40G, HP 49G, or HP 50G
  - Casio: fx-CP400 (ClassPad 400), Algebra fx 2.0, ClassPad 300 and ClassPad 330, and all model numbers that begin with CFX-9970G
- handheld, tablet, or laptop computers, including PDAs
- electronic writing pads or pen-input devices—Note: The Sharp EL 9600 is permitted.
- calculators built into cell phones or any other electronic communication devices
- calculators with a keypad (letter keys in QWERTY format). Note: Letter keys not in QWERTY format are permitted.

Calculators Permitted with Modification
The following types of calculators are permitted, but only after they are modified as noted:

- calculators that can hold programs or documents—Remove all documents and remove all programs that have computer algebra system functionality.
- calculators with paper tape—Remove the tape.
- calculators that make noise—Turn off the sound.
- calculators with an infrared data port—Completely cover the infrared data port with heavy opaque material such as duct tape or electrician's tape (includes Hewlett-Packard HP 38G series, HP 39G series and HP 48G).
- calculators that have power cords—Remove all power/electrical cords.

Permitted Calculators
Students may use any four-function, scientific, or graphing calculator, if:

- It is not on the list of Prohibited Calculators.
- All applications, programs and documents have been removed or deactivated as described in the Prohibited Computer Applications, Programs and Documents section.
- Proctors have made necessary modifications based on the Calculators Permitted with Modification section.

1Calculators with a Computer Algebra System (CAS) can produce symbolic results. These calculators can manipulate algebraic expressions, performing operations such as factor, expand and simplify. In addition, calculators with CAS can give answers in exact form without numerical approximations (Wikipedia). Some examples of applications with CAS functionalities: all versions of Zoom-Math, APP4MATH, F2K, Allmath and Polynomials All in One.

2Knowledgeable school staff may need to assist students in reinstalling or reactivating suppressed applications after testing is complete.

Calculator Use Policy for Paper-Based Testing and Testing with Accommodations
The use of a permitted calculator is allowed on all sections of the state-required assessment including those sections labeled non-calculator for students with an IEP or 504 Plan. The test administrator is not permitted to encourage the use of a calculator.

It is the examinee’s responsibility to know whether his/her type calculator is permitted. Calculators that hold documents or programs must have all documents and programs removed that have computer algebra system functionality.

OAA: Calculator Policy: February 2021
Hand-Held Calculator Accommodation
Students receiving Braille or Large-Print kits must use a hand-held calculator on the approved calculator list. Students taking the online test should use the online calculator provided, however some students may qualify for a hand-held calculator if they meet specific guidelines.

- They must have use of a calculator and a mathematics deficiency noted on their IEP or 504 Plan.
- They must have received and consistently used the calculator as part of regular classroom instructions throughout the year. Like all other accommodations, a calculator cannot simply be a state testing accommodation.
- A hand-held calculator must be clearly indicated on the IEP or 504; otherwise the student only qualifies for an online calculator during testing.

If students meet the above conditions, they may use an approved hand-held calculator on the online version of the test. If a student needs a hand-held calculator that is not on the approved list, the District Assessment Coordinator (DAC) must submit a written request to the Office of Assessment and Accountability (OAA) for permission allowing a student to use device not included on the list.

Online Calculator Accommodation
Students taking the online test with a calculator accommodation noted on their IEP or 504 Plan that does not specify hand-held and/or clearly specifies electronic or online calculator, may be provided an online calculator even on no-calculator tests. Use of the online calculator must meet specific guidelines:

- Student must have use of a calculator and a mathematics deficiency noted on their IEP or 504 Plan.
- Student must have received and consistently used the calculator as part of regular classroom instruction throughout the year. Like all other accommodations, a calculator cannot simply be a state testing accommodation.