




## Guide for IEP/504 Teams Considering the Specialized Calculator (CAL) State Test Accommodation for Calculator-Allowed Items (August 2022)

The Calculator (CAL) state test accommodation described in this document is only available to IEP or 504 students in **Grade 6 or above who take the Smarter Balanced math assessments**. The CAL accommodation allows for the provision of a specialized calculator to a student who is unable to use the online calculator that is available as a universal tool for select problems on the state test in mathematics. Examples of specialized calculators are: a large button/large display calculator, a calculator built into an assistive technology device, an adapted keyboard calculator for students with limited movement, a voice activated calculator, a talking calculator, or a braille calculator.

Like the universal CAL tool, the CAL accommodation can only be used on calculator-allowed items on the Smarter Balanced (SB) math test. **No student can use a calculator on all math problems when taking the SB state assessment in math.** Extra care monitoring students who are provided with the specialized CAL state test accommodation must be considered and planned for in advance of testing. This accommodation carries a **high risk** because students are prohibited from using the specialized CAL on calculator-prohibited items. It is essential that students are monitored during SB math testing to ensure that students do not use their specialized calculator on items for which no on-screen calculator is available. Items that allow the use of a calculator bear this symbol:  Calculator

**For students who are verified to be provided the CAL accommodation for state testing, a proctor will need to monitor the student to ensure that the specialized calculator is only used on calculator-allowed items.** All proctors will need to complete the *Acknowledgement Form for Proctors and Skills Trainers and Test Administrator* and *Proctor Acknowledgement of Security and Confidentiality Statement* form found in the [Smarter Balanced Summative Test Administration Manual](#). These forms should be completed prior to testing and kept on file at the school site by the School Test Coordinator (TC).

The specialized calculator is also available at the designated support level for the following state assessments: HSA Science and Biology, Algebra 1 and Algebra 2 End-Of-Course (EOC) tests. For these assessments that provide a calculator (embedded) as a universal tool for all problems on the assessment, any student with a need may have the specialized calculator designated support made available to them. Students who are taking the Algebra 1 and Algebra 2 EOC exams will need to be monitored, however, to ensure that the specialized calculator will be used only on the same calculator-allowed items as those available for the on-screen tool. (Note: Algebra 1 and Algebra 2 EOC exams are divided into specific test parts that limit calculator functionality to either: 1) a scientific calculator or 2) a scientific/ graphing/ linear regression calculator.)

This document contains guidelines for the specialized Calculator (CAL) state test accommodation and is organized into four sections: (I) general principles; (II) legal foundation; (III) critical considerations for teams; and (IV) decision guidance for teams.

## **Section I: General Principles Regarding State Test Accommodations**

The statewide assessments are designed to measure student proficiency and growth over time, curriculum impact and effect, and school achievement and gains. Tests are aligned to standards for learning that are established at the grade-level. Statewide assessments measure our students against those standards and the grade-level expectations for achievement found there. In order to yield valid and comparable results, it is essential that our tests measure what students know and can do when measured to the grade-level standard expectations. In Hawai'i, the Common Core and Next Generation Science Standards are used as the metric. For an understanding of how these standards are used as a basis to generate a grade-level proficiency score for the math summative test, see the [Smarter Balanced Mathematics Summative Assessment Blueprints](#).

The purpose of state test accommodations is to enable students with disabilities to participate “with adjustments that do not alter the assessed construct” and that are “applied to test presentation, environment, content, format (including response format), or administration conditions” (*Standards for Educational and Psychological Testing, 2014*). State test accommodations are intended to remove obstacles to student demonstration of knowledge and skills resulting from student disability. State test accommodations are not intended to reduce expectations for learning, modify the curriculum, or artificially inflate a student’s test score. **The key for appropriate accommodation provision during statewide assessments is to ensure that the student’s individual needs are met and the assessed “construct” (what a test measures) is not modified or altered.**

Additionally, state test accommodations should:

1. *Not be confused with instructional accommodations that support student learning.* Instructional accommodations may be applied to support emerging skills or reinforce the acquisition of new skills; however, these accommodations are strategically adjusted or removed in the classroom to monitor and/or assess student progress. Removal of the instructional accommodation during classroom assessment in many cases is the only way to acquire an accurate measurement of the student’s current level of skill.
2. Be shown to specifically overcome a student’s disability. The student should have used the support in the past with success in both classroom assessments and interim assessments that are measuring the same skills (construct). *This evidence should be documented under the Present Levels of Educational Performance (PLEP) in the student’s IEP/504 Plan.*
3. Be assigned only when supported with substantial evidence of need. Documentation of student disability mediation and classroom use during tests of the same construct must be found in the IEP/504 record. *This evidence should be documented in the “Services or*

*Accommodations and Related Services” and the “Statewide Assessment” pages of the student’s IEP/504 Plan record.*

State test accommodations are different from *modifications*. Modifications are allowances made for IDEA students that provide for adjustment(s) to the curriculum or assessment that change what is to be learned or what is to be measured. Examples of testing modifications that reduce expectations for learning and affect the construct of the test include: 1) simplification, clarification, or explanation of test questions or items; 2) use of spell-checking devices on a test of the student's spelling skills; and 3) use of a calculator on a test of the student's computational skills. While modifications may be used with caution during instruction to support students as they develop their knowledge and skills over time, they are not used in the general summative test.

## **Section II: Legal Foundation for State Test Accommodations**

Under the IDEA, State has the responsibility to:

- Ensure that children with disabilities are provided appropriate accommodations on Title I, Part A assessments, where necessary, as determined on an individualized case-by-case basis by their IEP/504 team.
- Develop guidelines for the provision of appropriate accommodations. Under 34 CFR §§300.160(b)(2), the State’s guidelines must identify only those accommodations for each assessment that do not invalidate the score; and instruct IEP teams to select, for each assessment, only those accommodations that do not invalidate the score.

These State guidelines apply to the provision of appropriate accommodations under the IDEA on regular and alternate assessments (34 CFR §300.160 (a)).

## **Section III: Critical Considerations Before Assigning the Specialized Calculator for Calculator-Allowed Items**

Decisions about assigning the CAL state test accommodation should be based on the general principles governing state test accommodations presented in Sections I and II and the specialized CAL guidelines found below.

### Purpose of the Specialized Calculator (CAL)

The purpose of the CAL state test accommodation is to provide a specialized device to IEP/504 students who cannot access the [Desmos](#) calculator that is universally available for select problems on the SB math assessments for Grades 6 – 8 and 11. For students with a disability that impacts their use of the online digital calculator, the CAL accommodation allows these students the use of an alternative - a specialized calculator on which to perform calculations. The specialized calculator can only be used on the same select items for which the onscreen calculator universal tool is available.

## Construct Measured by the State Tests in Mathematics

A test construct is what a test measures. There are four claims that the Smarter Balanced Mathematics Assessment purport to measure and provide student information, and they are described with the use of the specialized CAL accommodation (see below). Use of the specialized CAL accommodation on state tests enhances the measurement of students' math fluency, problem-solving, and skills to interpret, model, and solve real-life problems.

When deciding to recommend the specialized CAL accommodation for state testing, IEP/504 Plan Teams should consider the [Smarter Balanced Mathematics Assessment Claims 1, 2, and 4](#) as follows:

- *Concepts and Procedures (Claim 1)* - Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency. For Claim 1, fluency is one component of this claim that can be demonstrated through calculator use if accuracy as a sub-component of fluency is understood. Mathematical accuracy includes knowing when to apply a specific operation given a situation or real-life context. The provision of a calculator would not negatively impact accuracy if what is being measured is the understanding and appropriate use for operations.
- *Problem Solving (Claim 2)* - Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies. For Claim 2, the calculator would allow a student to demonstrate an understanding of what calculations to perform when, and in which order, given a situation or a real-life context.
- *Communicating Reasoning (Claim 3)* - Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
- *Modeling and Data Analysis (Claim 4)* - Students can analyze complex, real-life scenarios and can construct and use mathematical models to interpret and solve problems. For Claim 4, the calculator would allow a student to interpret and solve a problem based on their analysis of a complex, real-life scenario where the focus of the task is whether the student can interpret a situation, model it mathematically, and solve.

## Documented Need for the Specialized Calculator (CAL) Test Accommodation

The specialized CAL testing accommodation should only be assigned when a student has a documented disability that prevents him/her from accessing the embedded on-screen digital calculator for calculator-allowed items on the Smarter Balanced assessments in mathematics for Grades 6 – 8 and 11. In order to receive this accommodation, it is necessary to provide the following documented evidence:

1. The presence of a documented disability that impacts the student's ability to use the embedded on-screen [Desmos](#) calculator;

2. The ability of the student to independently use a specialized CAL for testing; and
3. The student's consistent use of a specialized CAL for classroom instruction and assessment.

#### Documented Familiarity with the Specialized Calculator (CAL) State Test Accommodation

If students are to use the specialized CAL testing accommodation for the calculator-allowed items on the SB assessments in mathematics in Grades 6-8 and 11, they must be familiar with their specialized calculator. Examples of specialized calculators include but are not limited to the following devices: a large button/large display calculator, a calculator built into an assistive technology device, an adapted keyboard calculator for students with limited movement, a voice activated calculator, a talking calculator, or a braille calculator. Students should have familiarity with the specialized calculator and be able to operate it independently as no external assistance is allowed when this accommodation is used during the summative test.

#### **Section IV: Guidance for IEP/504 Teams for Verifying the Need for the Specialized Calculator (CAL) State Test Accommodation**

This section provides IEP/504 Teams a tool with a set of questions to help guide the specialized calculator (CAL) state test accommodation decision-making process. The questions are intended to support team discussion and provide criteria that can serve as supporting evidence when considering student specialized CAL accommodation needs. These questions and the answers that are generated may be used to determine when and if there is sufficient evidence of student need supporting the provision of the specialized CAL state test accommodation. The intent is for IEP/504 Teams to use the questions found in Table 1 as a starting point from which to engage in dialogue, examine evidence, record data, and indicate the team decision based upon knowledge of the student and the evidence found in the student's IEP/504 Plan. A preponderance of evidence as well as care should be used when making this team decision. (Table 1 is not intended to be a tally sheet.)

**Table 1: Questions to Guide IEP/504 Team Decision about the Need for the CALCULATOR (CAL) (Specialized) State Test Accommodation for Calculator-Allowed Items on SB Math Assessments (Grades 6 – 8 and 11)**

This table should be used as a tool to guide IEP/504 team discussions about the student’s state test accommodation needs and help generate appropriate decisions and recommendations regarding the specialized CAL state test accommodation. *The completion of this table is optional.*

Questions	Team Response	Evidence/ Comments
1. Is the student taking a Smarter Balanced math assessment for Grades 6-8 and 11?	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> No	
2. Is there evaluative information indicating that the student’s disability severely limits his/her ability to use the embedded on-screen digital calculator in the electronic test platform?	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> No	
3. Does the student have a documented disability that impedes his/her ability to perform math calculations using the available on-screen Desmos calculator? If so, explain.	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> No	
4. Does the student always use a specialized calculator during classroom assessments in mathematics, in particular multi-step problem solutions?	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> No	
5. Is there evidence that the student’s ability to demonstrate their knowledge and application of mathematics increases when he/she uses a specialized calculator during mathematics instruction and assessment?	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> No	
6. Is there an expectation that the student will need a specialized calculator when pursuing post-secondary career opportunities and/or higher education?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
7. Has the student provided input or stated a preference for using a specialized calculator as a means for demonstrating his/her knowledge and application of mathematics in classroom assignments and assessments?	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> No	
8. Are there additional considerations for recommending the specialized CAL state test accommodation for this student, specific to his/her unique disability-related needs? If so, explain.	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> No	

Select the IEP/504 team recommendation below that is decided to be most appropriate for this student.

- The specialized CAL state test accommodation (e.g., a large button/large display calculator, a calculator built into an assistive technology device, an adapted keyboard calculator for students with limited movement, a voice activated calculator, a talking calculator, or a braille calculator) should be recommended for this student on the Smarter Balanced math assessments for Grades 6-8 and 11.
- More information is needed before making this decision.

Please list the names and titles of the IEP/504 team and other persons who were part of the state test accommodations decision-making team for the student (use the back if needed).

Name	Title	Date

Follow-up on this decision-making meeting by documenting any selected state test accommodations in the student’s IEP or 504 record, which is stored in the [electronic Comprehensive Student Support System](#) (eCSSS). Refer to the [eCSSS Directions](#) for documenting evidence to support the need for state test accommodations.

If the IEP/504 team makes the decision to recommend the specialized CAL state test accommodation for a student, then the School Testing Coordinator (TC) should consult the “Hawaii State Test Accommodations Identification and Request Process for Test Coordinators and School Assessment Teams” document available in the [Accessibility and Accommodations](#) resources folder on the [AlohaHSAP.org](#) portal website for guidance to submit state test accommodation requests.

In addition to the documented evidence in the IEPs/504 plans and the consultations with the Exceptional Support Branch and the Office of Curriculum and Instructional Design, the Assessment Section verifies state test accommodations in accordance with the *Individuals with Disabilities Education Act* (IDEA). As stated in 34 CFR §300.160(b)(2):

*The State’s guidelines must identify only those accommodations for each assessment that do not invalidate the score; and instruct IEP teams to select, for each assessment, only those accommodations that do not invalidate the score.*

***The Assessment Section recommends that [state test accommodation verification requests](#) be submitted one month prior to the opening of the test window. In all cases, state test accommodation requests should be submitted to the Assessment Section no later than 14 days prior to state (interim or summative) testing.***

If you have any questions, please email Elaine Lee at [Elaine.Lee@k12.hi.us](mailto:Elaine.Lee@k12.hi.us) or call the HIDOE Assessment Section at (808) 307-3636.