

**Virginia Assessment Program**  
**Growth Assessments and Standards of Learning (SOL) Assessments**  
**Calculator Accommodation Criteria Form**

This form is to be completed by an IEP Team/504 Committee to document that a student with a disability qualifies for a calculator accommodation on a mathematics and/or science Standards of Learning (SOL) test.

**Student Information:**

**Student Name:** \_\_\_\_\_ **State Testing Identifier (STI):** \_\_\_\_\_

**School Division:** \_\_\_\_\_ **Teacher:** \_\_\_\_\_ **Grade:** \_\_\_\_\_

**Primary Disability:** \_\_\_\_\_ **Secondary Disability (if applicable):** \_\_\_\_\_

The calculator accommodation must be directly related to the student's disability to access state assessments. The use of the calculator accommodation is not intended to enhance student performance for students with disabilities whose skills in performing mathematical calculations are below grade level.

**Test and Calculator Accommodation Information:**

**Test Name:** \_\_\_\_\_

The IEP Team/504 Committee must respond to the following questions, and the form must be retained as part of the student's IEP:

1. Does the student have a current IEP/504 Plan that documents, or will document, the student's disability and need for the calculator accommodation? --Select One--      **YES**      **NO**
  
2. As a result of a specific disability, has the student routinely used a calculator in the classroom to perform calculations? --Select One--      **YES**      **NO**

For the following questions, any "Yes" response must provide a justification statement to include:

- a description of the impact of the student's disabilities as related to mathematics, and
- an explanation of how the specific characteristics of the student's disabilities are addressed by the features or capabilities of the hand-held calculator beyond what the Desmos Virginia calculator offers.

**Does the student need to use a hand-held calculator with additional mathematical capabilities/features to access the SOL test or Growth Assessment?** --Select One--      **YES**      **NO**

**Justification Statement:** Please list and describe the additional mathematical capabilities/features needed and provide an explanation of how the specific characteristics of the student's disability are addressed by the listed features:

**<sup>1</sup>Additional Mathematical Capabilities/Features**

A calculator with additional mathematical capabilities/features is a calculator with mathematical capabilities/features designed to accommodate a student's disability. Calculators with additional mathematical capabilities/features provide functions beyond those available on the corresponding Desmos Virginia Calculator.

This document includes a checklist to help identify the approved mathematical capabilities/features of the four-function and the scientific calculators approved for use with SOL tests. Any additional mathematics capabilities/features on a hand-held calculator must be used for access to the SOL test and not to enhance student performance.

**Test Items Measuring SOL without a Calculator**

**Does the student require the use a calculator to access Mathematics SOL test items and Growth Assessment items in grades 3-7 in which a calculator is not allowed? --Select One--    YES    NO**

**Justification Statement:** Please provide an explanation of how the specific characteristics of the student's disability as it relates to mathematics require the use of a calculator on math items in which the calculator is not permitted.

**IEP Team/504 Committee Signatures:**

<b>Title/Position</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>

This calculator accommodation criteria form and associated documentation is subject to audit by the Department of Student Assessment, Accountability, and ESEA Programs.

## Checklist of Desmos Virginia Mathematical Capabilities for Calculators

The following checklists are provided to help identify the mathematical capabilities of the Desmos Virginia four-function and Desmos Virginia scientific calculators used with SOL tests and Growth Assessments. Any mathematical capabilities/features beyond those provided on the following checklists are considered additional mathematical capabilities/features. If a student requires the use of a hand-held calculator, calculator application, or software that goes beyond what the Desmos Virginia calculator offers, a [Special Assessment Accommodation Request](#) for the hand-held calculator, application, or software must be submitted to the Department of Student Assessment, Accountability, and ESEA Programs.

**Calculator Name and Model:** \_\_\_\_\_

### Four-Function Calculators:

The following features and capabilities are approved for four-function calculators used for state assessments, although not all four-function calculators will include all of these features.

Checklist	Approved Mathematical Capabilities
	<ul style="list-style-type: none"> <li>• Single line or multi-line display</li> </ul>
	<ul style="list-style-type: none"> <li>• Add (+), Subtract (-), Multiply (x), Divide (<math>\div</math>)</li> </ul>
	<ul style="list-style-type: none"> <li>• Square Root (<math>\sqrt{\quad}</math>)</li> </ul>
	<ul style="list-style-type: none"> <li>• Parenthesis ( )</li> </ul>

### Scientific Calculators:

The following features and capabilities are approved for scientific calculators used for state assessments, although not all scientific calculators will include all of these features.

Checklist	Approved Mathematical Capabilities
	<b>General Features:</b>
	<ul style="list-style-type: none"> <li>• Single line or multi-line display</li> </ul>
	<ul style="list-style-type: none"> <li>• QWERTY keyboard</li> </ul>
	<ul style="list-style-type: none"> <li>• Horizontal fraction bar (This does not provide decimal to fraction conversion.)</li> </ul>
	<ul style="list-style-type: none"> <li>• AOS: (Algebraic Operating System)</li> </ul>
	<ul style="list-style-type: none"> <li>• Fixed Decimal Capabilities</li> </ul>
	<ul style="list-style-type: none"> <li>• Scientific Notation (EE or EXP)</li> </ul>
	<b>Math Functions:</b>
	<ul style="list-style-type: none"> <li>• Add (+), Subtract (-), Multiply (x), Divide (<math>\div</math>)</li> </ul>
	<ul style="list-style-type: none"> <li>• Correct Order of Operations (M, D, A, S) performed by calculator</li> </ul>
	<ul style="list-style-type: none"> <li>• One constant (K)</li> </ul>
	<ul style="list-style-type: none"> <li>• Parenthesis ( )</li> </ul>
	<ul style="list-style-type: none"> <li>• Chance Sign (+/-)</li> </ul>
	<ul style="list-style-type: none"> <li>• Powers of 10 (<math>10^x</math>)</li> </ul>
	<ul style="list-style-type: none"> <li>• Percent (%), Square (<math>x^2</math>), Cube (<math>x^3</math>), Inverse (<math>1/x</math>), Raise number to a power (<math>x^y</math>), Pi (TT), Square Root (<math>\sqrt{\quad}</math>), Cube Root <math>\sqrt[3]{\quad}</math></li> </ul>
	<b>Trigonometry:</b>
	<ul style="list-style-type: none"> <li>• Sine (sin), Cosine (cos), Tangent (tan) and Inverses (<math>\sin^{-1}</math>, <math>\cos^{-1}</math>, <math>\tan^{-1}</math>)</li> </ul>
	<ul style="list-style-type: none"> <li>• Hyperbolic Functions (hyp)</li> </ul>
	<ul style="list-style-type: none"> <li>•</li> </ul>
	<ul style="list-style-type: none"> <li>•</li> </ul>
	<b>Statistics:</b>
	<ul style="list-style-type: none"> <li>• One-Variable Statistics/Two-Variable Statistics</li> </ul>
	<ul style="list-style-type: none"> <li>• Combinations (nCr), Permutations (nPr), and Factorials (x!)</li> </ul>
	<ul style="list-style-type: none"> <li>• Logarithm (log), Natural Log (ln), Exponential (<math>e^x</math>)</li> </ul>

## Appendix

### Scientific Calculators with Accessibility Features and Additional Mathematical Capabilities

The following scientific calculators may be used by students with visual impairments, including blindness, without submitting a *Special Assessment Accommodation Request Form*; however, the following conditions for the specific calculator must be followed during testing. A visual impairment, including blindness, means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness (34 CFR §300.8(c) (13)). The term "visual impairment" does not include children who have learning problems that are primarily the result of visual-motor or perceptual deficits; although, visually impaired students may also have these additional diagnoses.

#### 1. *SciPlus-2200VA and SciPlus-2300VA Scientific Calculators*

Sight Enhancement Systems, Inc., has developed two modified single-line display scientific calculators with specific model names, *SciPlus-2200VA* (large button and large screen) and *SciPlus-2300VA* (large button, large screen, and talking), that are comparable to scientific calculators on the Virginia Department of Education's list of approved calculators for SOL tests. These modified versions are only available for purchase directly from the manufacturer, Sight Enhancement Systems, Inc., at [sales@sightenhancement.com](mailto:sales@sightenhancement.com). *SciPlus* calculators purchased from other representatives or distributors that do not have the letters "VA" included in the model name have additional mathematical capabilities and should not be used for state assessments.

- The *SciPlus-2200VA* and *SciPlus-2300VA Scientific Calculators* are comparable to other VDOE-approved scientific calculators, so if the IEP team/504 committee determines that the student requires the accessibility features (see Justification# 3), either calculator may be used without submitting a Special Assessment Accommodation Request. If the talking feature will be used, the student must be tested individually or use headphones/earbuds so other students are not distracted. The student's test record should be coded with Accommodation Code 28.

#### 2. *Orion TI-30XS MultiView Talking Scientific Calculator*

The *Orion TI-30XS MultiView Talking Scientific Calculator* is a modified version of the standard *TI-30XS MultiView Scientific Calculator*. The modifications are provided through an attached device with three accessible buttons controlling the speech features of the calculator. In addition to the accessibility features, this calculator has additional mathematical capabilities beyond other VOCE-approved scientific calculators that include a multi-line display with edit, cut and paste features, and fraction and (x,y) table capabilities. If the IEP team/504 committee determines that the student requires both the accessibility features (see Justification# 3) and the additional mathematical capabilities (see Justification# 4) to access the state assessment, then the calculator can be used without submitting a Special Assessment Accommodation Request and the following specific conditions must be implemented:

- If the talking feature will be used, the student must be tested individually or use headphones/earbuds so other students are not distracted.
- The student's test record should be coded with Accommodation Code 28.

If the IEP team/504 committee determines that the student requires the accessibility features of the *Orion TI-30XS MultiView Talking Scientific Calculator* (see Justification# 3), but the student does not require the additional mathematical capabilities to access the state assessment, then the student may use this calculator during testing but must not use the fraction or (x,y) table keys. It is not necessary to submit a Special Assessment Accommodation Request; however, the following specific conditions must be implemented:

- If the talking feature will be used, the student must be tested individually or use headphones/earbuds so other students are not distracted.
- The test examiner and a proctor must be present during the entire test session. The test examiner will administer the assessment while the proctor will observe and verify test conditions are met including,