### Description and Guidance for Selecting Accommodation

If a student’s disability affects mathematics calculation, reasoning, or access, a calculator or other mathematical tool may be needed. Some students may need to use mathematical tools such as a larger print ruler, Braille ruler, tactile compass, Braille protractor. Sometimes other mathematical tools are needed by students with disabilities such as an abacus, Brannan Cubarithm, Math Window, arithmetic table, number chart, or manipulative.

Calculation devices assist with computation. It is important to determine whether the use of a calculation device is a matter of convenience or a necessary accommodation. It is important to know the goal of instruction and assessment before making decisions about the use of a calculation device. For example, if students are learning subtraction with regrouping, using a calculator would not give students an opportunity to show regrouping. On the other hand, if students are learning problem solving skills that include subtraction (i.e., bargain shopping for items with a better value), the use of a calculation device may be a valid accommodation. Calculators may be adapted with large keys or voice output (talking calculators).

### Administration Directions/Requirements

- **STATE ASSESSMENT**
  - Refer to the TACM for the specific calculators that can be used for specific assessments.
  - When testing online, some mathematics tools must be used within the online testing deliver platform system. Test Examiners must refer to the TACM or Examiner’s Manual for each specific assessment to review information related to mathematics tools available online.

- **CLASSROOM INSTRUCTION/ASSESSMENT**
  - For classroom instruction and classroom assessment(s):
    - Mathematic manipulative(s) and software manipulative options can be used in instruction and assessment in the classroom as a calculation support through this accommodation
    - This accommodation is best suited for multi-step mathematical problems when simple calculations are required, as well as the process of the math reasoning concepts
    - If the goal of the concept being taught is to provide the necessary work to generate an answer, then a calculation device should be left for checking purposes only. This should be determined on an individualized basis as the severity of the disability and its impact on math calculation skills
    - Planning for instruction in the use of a calculation device must be considered. Students must have a clear understanding of when the use of a calculation device is appropriate for solving and checking their answers
    - Differentiation of assignments for students utilizing a calculation device needs to be considered, as a student using a calculation
<table>
<thead>
<tr>
<th><strong>2-J: Mathematical Tools and Calculation Devices- Response Accommodation-Continued</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Device will most likely finish an assignment before those students not using a calculation device (plan for extension activities, or require the student to complete some problems with and without a calculation device when feasible)</td>
</tr>
<tr>
<td>• When providing instruction on mathematical concepts, best practice is to demonstrate how to complete the problem using a calculation device, as well as how to check a calculation for correctness</td>
</tr>
<tr>
<td>• Students need to have direct instruction on the use of a calculation device or mathematical tool. Various multi-step processes may be completed with the calculation device including many pre-algebraic and algebraic computations</td>
</tr>
<tr>
<td>• Students with a calculation device accommodation may benefit from a process guide that provides step-by-step directions, along with visual pictorial representations of buttons used at each step in solving mathematical problems</td>
</tr>
</tbody>
</table>

*CI=Classroom Instruction, CA=Classroom Assessment, SA=State Assessment*