

# **Calculator Policy**

# New Jersey Student Learning Assessments (NJSLA) New Jersey Graduation Proficiency Assessment (NJGPA)

Usage of calculators is permitted only in the calculator section of mathematics units and in all units of science.

- Grades 3—5 do not have any calculator sections or units in the mathematics assessment.
- In grades 6, 7, high school end-of course, and NJGPA, one of the mathematics units is split into two sections: a non-calculator section and a calculator section. The other units permit calculator usage throughout the entire unit.
- In grade 8 mathematics, calculators are not allowed in the first unit, but the remaining unit permits calculator usage throughout the entire unit.
- In science, all units permit calculator usage.

For online testing, grade or course-specific calculators are available for use within the TestNav environment. Districts may provide, or students may bring, a handheld calculator consistent with the guidelines provided below. For paper-based testing, specific grade appropriate calculators are allowed. See the Frequently Asked Questions (FAQs) #1 below for additional information.

#### **Allowable Calculators for Mathematics**

- **Grades 3–5:** No calculators allowed, except for students with an approved calculator accommodation (see Calculator Accommodations below).
- **Grades 6–7:** Four-function calculators with square root and percentage functions.
- Grade 8: Scientific calculators.
- **High School End-of-Course and NJGPA:** Graphing calculators (with functionalities consistent with TI-84 or similar models).
  - > Important note: Middle school students taking a high school end-of-course assessment must follow the high school end-of-course calculator guidelines.

### **Allowable Calculators for Science**

- **Grade 5:** Four-function calculators with square root and percentage functions.
- Grade 8: Scientific calculators.
- Grade 11: Graphing calculators (with functionalities consistent with TI-84 or similar models).

Additionally, schools must adhere to the following additional guidance regarding calculators:

- No calculators with Computer Algebra System (CAS) features are allowed.
- No tablet, laptop, personal digital assistant (PDA), or phone-based calculators are allowed during the assessments.
- Students are not allowed to share calculators within a testing session.
- Test Administrators must confirm that memory on all calculators has been cleared by resetting the
  calculator to its default settings before and after each testing session. Additional steps may be
  needed to completely clear all memory, stored programs and formulas, archives, and apps that
  are not factory-installed for graphing calculators. See the FAQs (#11) below for additional
  clarification on how to clear the memory, stored programs, and formulas of graphing calculators.
- Calculators with "QWERTY" keyboards are **not** permitted.
- If schools or districts permit students to bring their own handheld calculators for the assessment, test administrators must confirm that the calculators meet the requirements as defined above.

#### **Calculator Accommodations**

There may be some students who will require a calculation device as indicated in their IEP or 504 plan.

The following are allowable calculators for students who have calculation device specified in their IEP or 504 plan:

- Grades 3–5: Four-function calculators with square root and percentage functions
- Grades 6–7: Four-function calculators with square root and percentage functions
- **Grade 8:** Scientific calculators (Student may also bring a four-function with square root and percentage functions calculator in addition to the grade-level calculator).
- High School NJSLA and NJGPA: Graphing calculators with functionalities consistent with TI-84 or similar models (Student may also bring a scientific calculator or a four-function with square root and percentage functions).

### **Calculation Device (on Calculator Sections)**

A student with this accommodation may use a specific calculation device (e.g., large key, talking, or other adapted calculator) other than the embedded grade-level calculator on the **Calculator section** of the mathematics assessments. If a talking calculator is used, the student must use headphones or be tested in a separate setting.

### **Calculation Device and Mathematics Tools (on Non-Calculator Sections)**

A student with this accommodation may use a calculation device (e.g., four-function calculator, large key, or other adapted calculator), arithmetic table (including addition/subtraction and/or multiplication/division charts), and/or manipulatives (IEP or 504 plan must specify which device or manipulative) on the **Non-Calculator Section** of the mathematics assessments. If a talking calculator is used, the student must use headphones or be tested in a separate setting.

If a student needs a calculator as part of an accommodation in the non-calculator section on a computer-based test, the student will need a handheld calculator because an online calculator will not be available. If a student needs a specific calculator (e.g., large key, talking), the student can also bring their own, provided it is specified in their approved IEP or 504 Plan.

### Frequently Asked Questions about the Calculator Policy

### 1. Can students use handheld calculators for computer-based assessments?

Yes. Students may use handheld calculators on computer-based Mathematics and Science assessments on units/sections where a calculator is allowable if they prefer. All handheld calculators must meet the requirements as defined in the Calculator Policy. For computer-based testing, a grade appropriate calculator is available for students to use during the calculator section of the mathematics assessments.

It is recommended that schools identify which students prefer to use a handheld calculator prior to administration to ensure that a sufficient number of calculators is available. Handheld calculators are required for paper-based testing. Test administrators are responsible for ensuring handheld calculators meet specifications, including ensuring the memory is cleared before and after administration.

#### 2. Can students use their own calculators on the assessments?

Yes. However, test administrators must confirm that the calculators meet the requirements as defined in the Calculator Policy.

# 3. Can students use calculators on the assessments that are allowable for higher or lower grade level assessments?

In general, no. Students must only use calculators that are allowable for their grade/course assessment. The assessment items were developed with the Calculator Policy in mind. Allowing for the use of a calculator that is designated for a lower or higher-grade level assessment may unfairly disadvantage or advantage students and is, therefore, not allowed. **Exception**: Students with a disability that *severely limits or prevents* their ability to perform basic calculations may receive an accommodation, according to their IEP or 504 plan, to use a calculator designated for a lower grade on Mathematics or Science Assessments in addition to the grade level calculator.

### 4. Does my school have to buy new calculators?

All students participating in computer-based assessments will be provided an online calculator through the computer-based delivery platform. If a student chooses to use a handheld calculator, they may either bring their own calculator or the school may provide the calculator. For paper-based assessments, students in grades 6 and higher must have a handheld calculator for the calculator portion of the mathematics assessment, and all students must have a handheld calculator for the science assessment. Either schools must ensure they have a sufficient number of the appropriate calculators available **or** allow students to bring their own. All calculators must meet the requirements defined in the Calculator Policy.

# 5. If a student has the Calculation Device and Mathematics Tools (on Non-Calculator Sections of Mathematics Assessments) accommodation, what allowable mathematics tools can be used?

A student with the accommodation to have a calculation device and mathematics tools (on non-calculator sections of the mathematics assessments) may only use the following mathematics tools to aid in calculation:

- Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts; division charts)
- Two-color chips (e.g., single-sided or double-sided)
- Counters and counting chips
- Square tiles
- Base 10 blocks
- 100s chart

# 6. Can students use the TI-Nspire (non-CAS) calculator on the high school NJSLA and NJGPA assessments?

Yes. The TI-Nspire (non-CAS) calculator meets the requirements as defined in the Calculator Policy.

### 7. Do memories have to be cleared on every handheld calculator?

Yes. Calculator memories must be cleared by resetting the calculator to its default settings before and after each testing session.

### 8. What will happen to my apps when the calculator is reset to its default settings?

Preinstalled apps will still be present on the calculator after it has been reset. However, apps that have been created by the user will be deleted during the resetting process. If those apps are needed after testing has been completed, it would be prudent to transfer those apps to a PC/Mac prior to testing.

## 9. When is the memory reset on the online graphing calculator in TestNav?

The online graphing calculator resets to its default settings after each unit. However, within a unit, the screen display on the online graphing calculator will carry from item to item.

### 10. In what mode, radians or degrees, is the online graphing calculator set?

The default mode of the online graphing calculator at the beginning of each unit is radians.

# 11. How do I clear the memory for TI graphing calculators?

To clear the memory of TI-84 graphing calculators (or similar models), students and/or Test Administrators should complete the following steps:

Select the following:

- 2nd
- +(Mem)
- 7: Reset
- Scroll right twice to "All"
- 1: All Memory
- 2: Reset

The screen should say "Resetting All." When completed, the screen will say "Mem Cleared."

There may be other steps for completely clearing the memory for non-TI graphing calculators. Test Administrators are expected to check that all memory, programs, formulas, archives, and non-factory installed apps have been cleared from calculators that will be used during state testing.

A detailed list of testing accommodations can be found in the *NJSLA and NJGPA Accessibility Features* and Accommodations Manual at the <u>New Jersey Assessments Resource Center</u>, located under **Educator Resources > Test Administration Resources > Accessibility Features and Accommodations** (AF&A) Resources.