Calculator Policy

Calculators are allowed only for some or all parts of AP Exams in these subjects: Biology, Calculus (AB/BC), Chemistry, Environmental Science, Macroeconomics, Microeconomics, Physics 1, Physics 2, Physics C: Mechanics, Physics C: Electricity and Magnetism, Precalculus, and Statistics. Students may bring up to two permitted calculators to the exam.

Graphing calculators must be on the approved calculator list. (See pages **63–64**.) Four-function calculators are basic calculators that have functions limited to addition, subtraction, multiplication, division, square roots, and percentage.

NEW The calculator policy for AP Precalculus, including a list of approved graphing calculators, is now included in this section.

Note: Calculators are **not allowed** for any other AP Exams, including Computer Science A* and Computer Science Principles*.

*Unless a student has an approved accommodation for use of a four-function calculator. (See page **105** for details.)

Biology

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response

▪ Allowed:
  ◆ Four-function calculator (with square root)
  ◆ Scientific (nongraphing) calculator, but must **not** have unapproved features or capabilities (see the list of unapproved calculators and technology on page **61**)
  ◆ Graphing calculator
	Allowed	Allowed

Calculus AB/Calculus BC

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response

▪ Graphing calculator required and expected to have built-in capability to:
  ◆ Plot the graph of a function within an arbitrary viewing window.
  ◆ Find the zeros of functions (solve equations numerically).
  ◆ Numerically calculate the value of the derivative of a function at a point.
  ◆ Numerically calculate the value of a definite integral.
  ◆ If these capabilities aren't built in, the student should enter appropriate programs into the calculator before the exam.
 	
▪ **Not** allowed:
  ◆ Nongraphing and other types of calculators are prohibited, even as a second calculator
	Not allowed for Part A
	
	Required* for Part B
		Required* for Part A
		
		Not allowed for Part B

* "Required" indicates some questions can't be answered without a graphing calculator and **no** other calculator type is permitted.

Chemistry

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response

▪ Allowed:
  ◆ Scientific (nongraphing) calculator (recommended), but must **not** have unapproved features or capabilities (see the list of unapproved calculators and technology on page **61**)
  ◆ Graphing calculator
  ◆ Four-function calculator (not recommended)
	Allowed	Allowed

Environmental Science

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response

▪ Allowed:
  ◆ Four-function calculator (with square root)
  ◆ Scientific (nongraphing) calculator, but must **not** have unapproved features or capabilities (see the list of unapproved calculators and technology on page **61**)
  ◆ Graphing calculator
	Allowed	Allowed

Macroeconomics/Microeconomics

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response
■ Allowed: ◆ Four-function calculator	Allowed	Allowed
■ **Not** allowed: ◆ Calculators with storage capabilities, such as scientific or graphing calculators, are prohibited		

Physics 1: Algebra-Based, Physics 2: Algebra-Based, Physics C: Electricity and Magnetism, Physics C: Mechanics

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response

■ Allowed:
  ◆ Four-function calculator
  ◆ Scientific (nongraphing) calculator, but must **not** have unapproved features or capabilities (see the list of unapproved calculators and technology on page **61**)
  ◆ Graphing calculator
	Allowed	Allowed

NEW Precalculus

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response

■ Graphing calculator required and expected to have built-in capability to:
  ◆ Perform calculations (e.g., exponents, roots, trigonometric values, logarithms).
  ◆ Graph functions and analyze graphs.
  ◆ Generate a table of values for a function.
  ◆ Find real zeros of functions.
  ◆ Find points of intersection of graphs of functions.
  ◆ Find minima/maxima of functions.
  ◆ Find numerical solutions to equations in 1 variable.
  ◆ Find regressions equations to model data (linear, quadratic, cubic, quartic, exponential, logarithmic, sinusoidal, and plotting residuals).
  ◆ Perform matrix operations (e.g., multiplication, finding inverses).
	Not allowed for Part A
	
	Required* for Part B
		Required* for Part A
		
		Not allowed for Part B

■ **Not** allowed: ◆ Nongraphing and other types of calculators are prohibited, even as a second calculator		

* "Required" indicates some questions cannot be answered without a graphing calculator and **no** other calculator type is permitted.

Statistics

Type of Calculator	Exam Section I Multiple Choice	Exam Section II Free Response

■ Allowed:
  ◆ Graphing calculator with statistical capabilities expected.*
  ◆ Scientific (nongraphing) calculator if the calculator has the required statistics computational capabilities described in the AP Statistics Course and Exam Description.
    – Computational capabilities should include standard statistical univariate and bivariate summaries, through linear regression.
    – Required capabilities may be either built in or programmed into the calculator before the exam.
  ◆ Graphical capabilities should include common univariate and bivariate displays such as histograms, boxplots, and scatterplots.
  ◆ It's up to the student to determine if the calculator meets the criteria of required computational and graphical capabilities.
	Expected*	Expected*

■ **Not** allowed: ◆ Enhancements other than those that improve the calculator's computational and/or graphical functionalities are prohibited. Unapproved enhancements include, but are not limited to, keying or scanning text or response templates into the calculator.		

* Although scientific calculators with computational capabilities (standard statistical univariate and bivariate summaries, through linear regression) are allowed, students are expected to use a graphing calculator.