

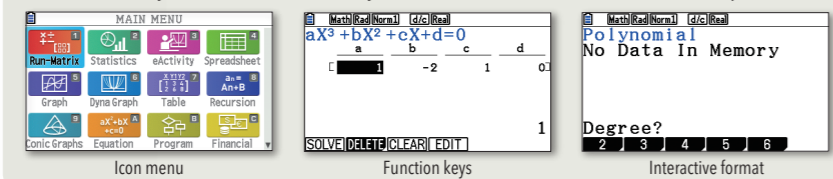
A CASIO graphing calculator with powerful advantages

Three key features make the fx-CG50 ideal for mathematics learning.



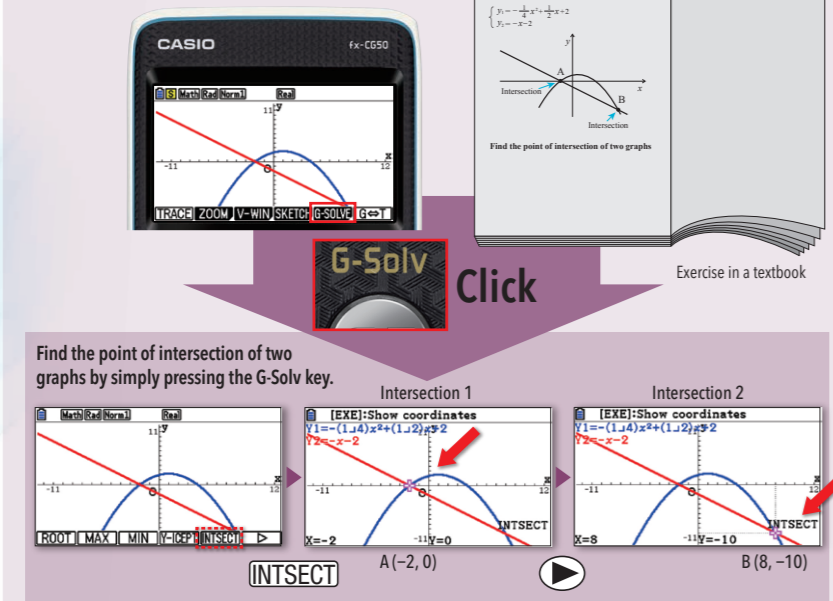
1 Intuitive operation

The user-friendly Icon menu, Function keys, and Interactive format enable intuitive operation.



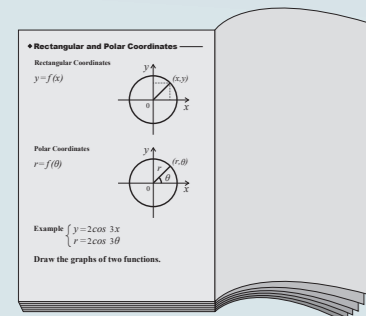
2 G-Solve feature

Use the G-Solve feature to easily solve problems involving intersections, roots, and integration.



3 Explore feature

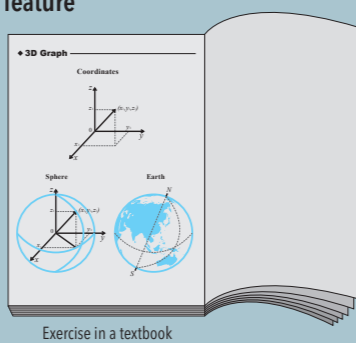
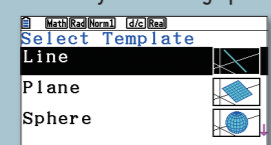
Freely explore mathematics by drawing graphs on rectangular coordinates and polar coordinates.



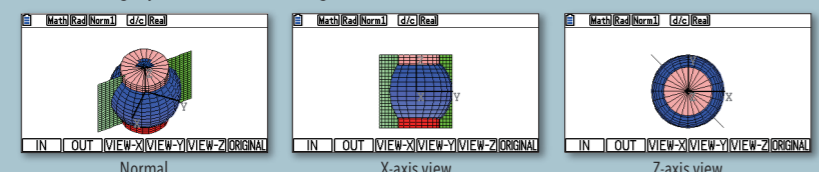
Learning about 3D graphs using the Explore feature

It's difficult to understand 3D graphs used in textbooks. The 3D Graph feature of the fx-CG50 makes it easy to draw and explore 3D graphs. This feature promotes mathematical understanding of 3D graphs and helps in learning solid figures.

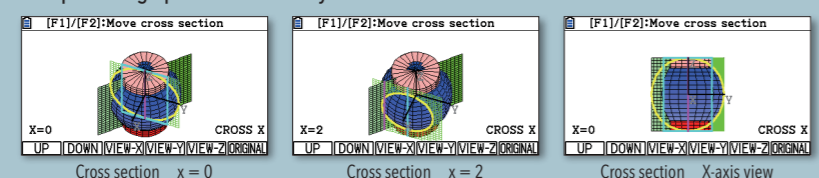
1. It's easy to draw 3D graphs using templates.



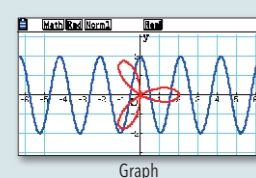
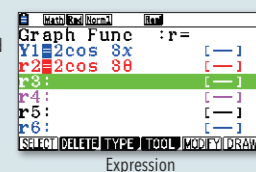
2. View 3D graphs from various angles.



3. Explore 3D graphs in different ways.



Since rectangular coordinates and polar coordinates can be displayed on the same screen, their interaction can be understood.

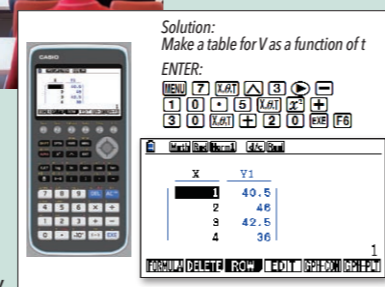


Software (Manager)

Manager is a software program that emulates the operation of Graphing calculator fx-CG50. This enables teachers to prepare teaching materials (Activities) and present them in the classroom using a projector (Workshops).



Workshop



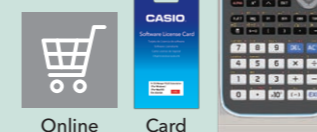
Activity

Subscription Methods

There are two ways to subscribe: online or by card.

fx-CG Manager PLUS Subscription for fx-CG Series

• fx-CG50 Calculator Emulation for Windows
for Mac



*fx-CG Manager PLUS Subscription for fx-CG20 Series license holders can utilize fx-CG Manager Subscription for fx-CG50 Series with the same license.

Licensing Options

CARD

- License expiration period: 1 year
- FA-CG1SA (Single License)
 - FA-CG1SB (10 Licenses)
 - FA-CG1SC (30 Licenses)
 - FA-CG1SD (100 Licenses)

Online

- License expiration period: 1 year
- FA-CG1-W1A (Single License)
 - FA-CG1-W1B (10 Licenses)
 - FA-CG1-W1C (30 Licenses)
 - FA-CG1-W1D (100 Licenses)

License expiration period: 3 years

- FA-CG1-W3A (Single License)
- FA-CG1-W3B (10 Licenses)
- FA-CG1-W3C (30 Licenses)
- FA-CG1-W3D (100 Licenses)

Specifications

Basic Functions

- Angle unit, Angle unit conversion (Deg, Rad, Gra)
- Trigonometric functions, Inverse trigonometric functions
- Hyperbolic functions, Inverse hyperbolic functions
- Exponent functions, Logarithmic functions
- Power functions (square root, cubic root, square, power, radical root)
- Coordinate conversion (Pol, Rec)
- Combination/Permutation (nCr , nPr)
- Factorial, Inverse, Random numbers, Random sampling of an existing list, Fractions
- Logical operations
- Sexagesimal \leftrightarrow Decimal conversion
- Matrix calculations
- Vector calculations
- Complex number calculations
- Base- n calculations/conversions
- List data calculations
- Rounding
- Display format
- Conversion (pre-installed software)
- Engineering symbol calculation
- Engineering notation

Graphing

- 3D Graph (pre-installed software)
- Rectangular coordinate graphing, Polar coordinate graphing
- Integration graph
- Parametric function graphing, Inequality graphing
- Trace, Zoom (box zoom, zoom in, zoom out, auto zoom)
- Table and Graph
- Dual Graph (table and graph, graph and graph)
- Sketch (tangent line, normal line, inverse function)
- Solve (root, minimum, maximum, intersection, integration: integral calculation improvement (real-time integral calculation), new integral calculation function (mixed integrals))
- Dynamic graph
- Conic section graph
- Recursion graph
- Picture Plot (pre-installed software)

Hardware

- Dimensions H x W x D (mm): 18.6 x 89 x 188.5
- Approximate weight (g): 230 (including batteries)
- Power supply: Four AAA-size alkaline batteries or four nickel-metal hydride batteries
- Approximate battery life (hours)*: 170 (AAA-size alkaline batteries), 100 (nickel-metal hydride batteries)
- Dot matrix display: 216 x 384 dots
- Display capacity (characters): 21 x 8
- Internal operation digits: 15
- Nested parentheses levels: 26
- Data communication: 3-pin cable, USB cable
- 3-pin serial port
- USB port

*Repeat of following three-step cycle each hour. (1) Menu display for 5 minutes (2) Run-Matrix mode calculation for 5 minutes (3) Flashing cursor in Run-Matrix mode for 50 minutes.



* Comes with slide-on hard case

Visit our website for more information about the fx-CG50. <http://edu.casio.com>



• Windows is a registered trademark of Microsoft Corporation in the United States and other countries. • Mac is a registered trademark of Apple Inc. in the United States and other countries. • Designs and specifications are subject to change without notice.

CASIO

Support Classroom
with Technology



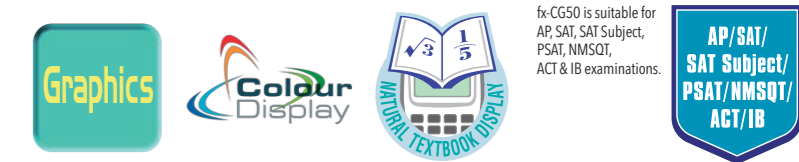
Easy-to-operate, high-definition 3D Graph provides visual support for mathematical exploration.

Graphing Scientific Calculator

fx-CG50

Take advantage of easy-to-operate, high-definition 3D Graph in mathematics learning that is intuitive and easy to understand.*1

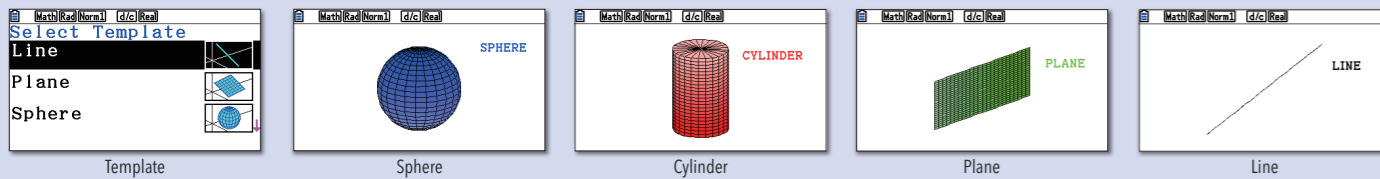
The innovative color display and 3D Graph dramatically increase math learning efficiency.



3D Graph

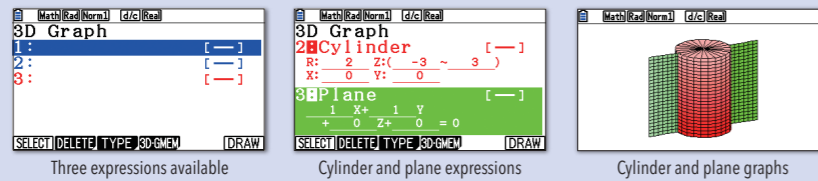
① **3D graph types** Four types of 3D graphs (Sphere, Cylinder, Plane, and Line) are available. Draw various kinds of 3D graphs and examine them visually.

*1 It's easy to draw 3D graphs using templates. (An industry-first feature)

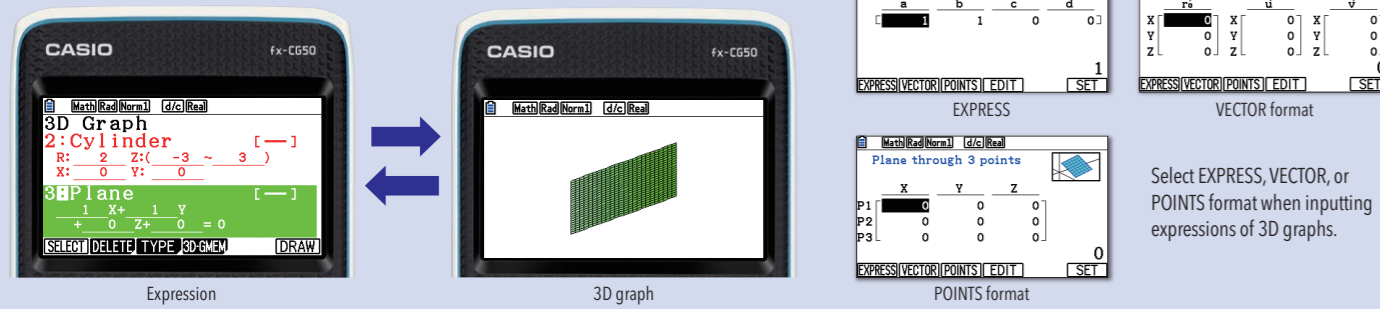


② **Draw and display up to three 3D graphs.**

Recognize combinations of 3D graphs and interactive relationships between two or three graphs mathematically.

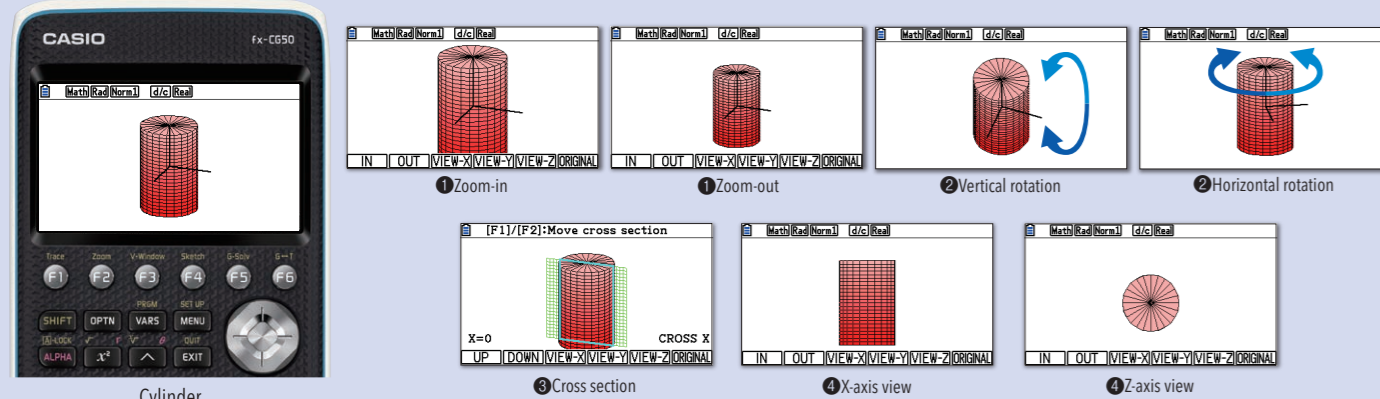


③ **Investigate the relationship between expressions and 3D graphs.**



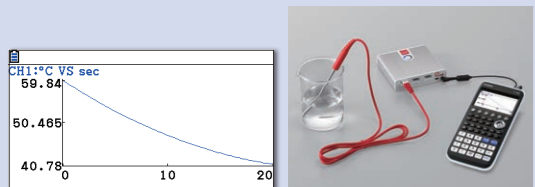
④ **Explore 3D graphs mathematically.**

① Zoom in and zoom out ② Rotation vertically and horizontally ③ Cross section ④ X-axis, Y-axis, Z-axis view. These functions are effective in exploring 3D graphs geometrically.



E-CON4 Application

This feature, with a simple user interface, is effective for collecting data for use in classroom science and technology lessons.



This feature has Auto-ID recognition, which enables drawing of graphs of collected data automatically with no complicated settings.

Catalog Function

Select the desired command easily and quickly using the catalog function.



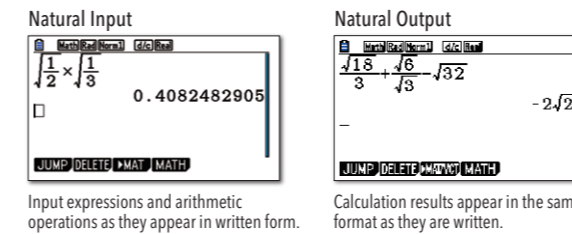
Examination Mode

This mode allows you to quickly prepare your calculator for exams. This mode restricts access to memory, programs, functions and applications, so that these features would not be available during exams.

Includes Many Basic Calculator Functions

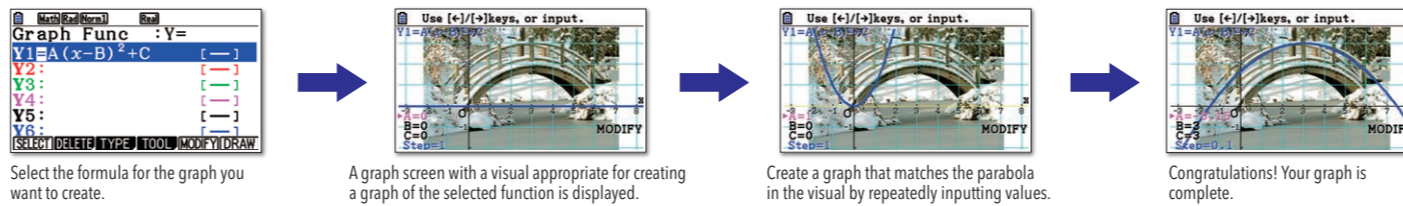
Natural Textbook Display!

CASIO's original "Natural Expression Input Display" and "Natural Expression Output Display" make it possible to display fractions, exponents, logarithms, powers, and square roots just as they are written in the textbook. The result is enhanced student comprehension and improved math class efficiency.



Graphing

Students can create a wide variety of graphs over real-life visual backgrounds.



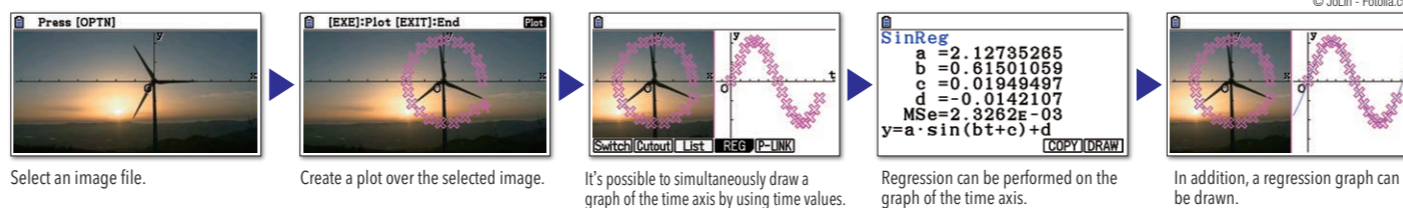
Geometry

The use of real-life visuals makes it fun and easy to study various aspects of geometry, including the drawing of shapes, movement, and similarity relations.



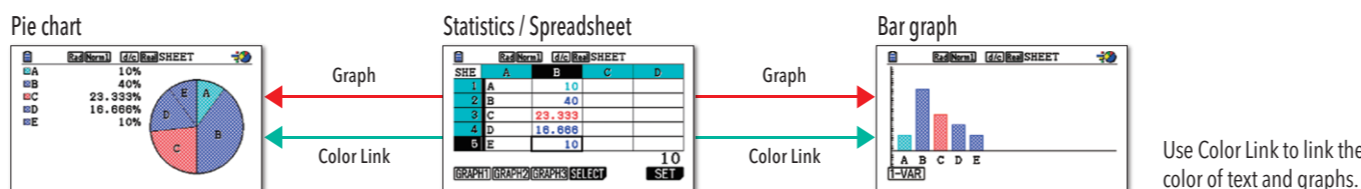
Picture Plot

Students can search for and plot curves found in nature and their surroundings. Analysis of the plotted data deepens understanding of the function.



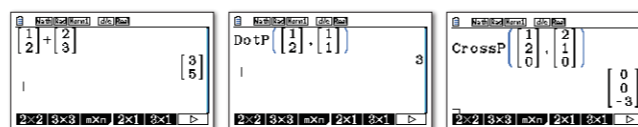
Color Link

The fx-CG50 features the Color Link function, which automatically links colors specified on the spreadsheet screen with colors used in graphs to support learning of functions by enabling visual confirmation of changes in values or trends.



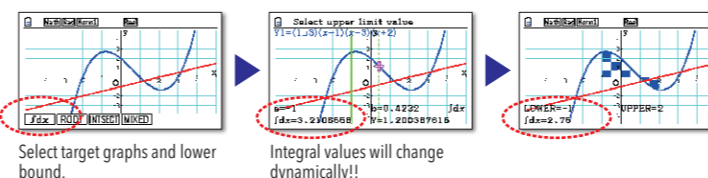
Vector Calculation

Perform operations on vectors and calculate the inner product and outer product.



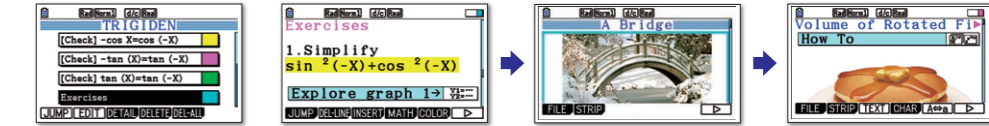
Integral calculation improvement

Verify the integral value in real time while freely moving the interval using the cursor key.



eActivity

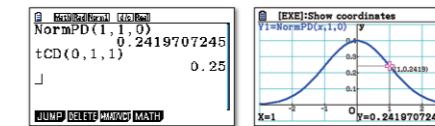
The fx-CG50 comes with the same eActivity capabilities first introduced on the ClassPad. This feature allows teachers and students to create their own problems or study materials and enables students to learn at their own pace and study more efficiently at school or at home. eActivity is a great motivator for learning and understanding.



Other Features

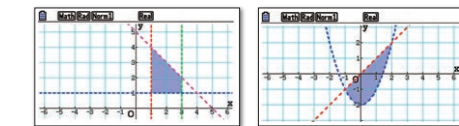
Probability

Normal distribution, Student's *t*-distribution, and other often-used statistical calculations are provided in function format for easier practical application.



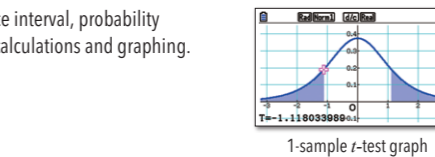
Inequality Graphing

New support for graphing the inequality of an $x = \text{Constant}$ graph and $x = f(y)$ graph allows study of the area for which the x -range is defined.



List-based Statistics

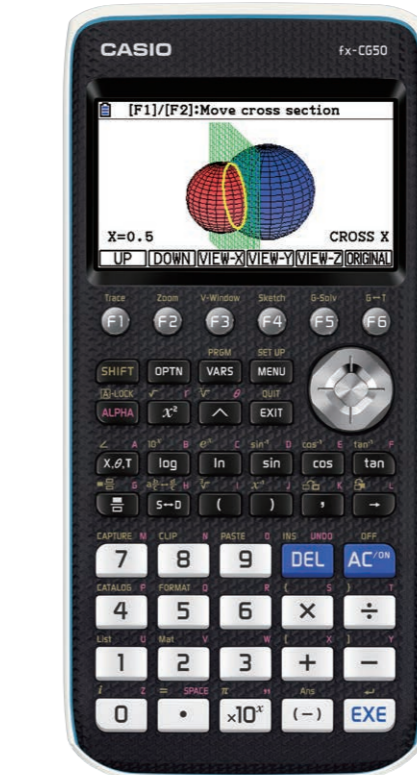
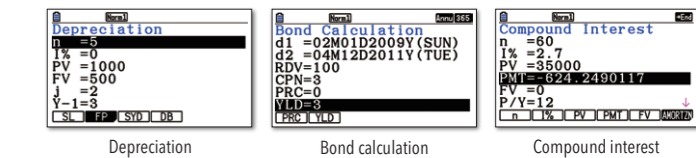
Store a list of values in memory for use when performing function and statistical calculations, when drawing graphs, or when generating tables of numeric values.



Spreadsheet

A multi-function spreadsheet with built-in graphing capabilities is a valuable tool for table calculation lesson exercises.

Financial Calculations



- over 2,900 FUNCTIONS
- 61,000 bytes
- Natural Textbook Display
- List-based STAT
- Multi-replay
- 21 Shortcuts by 0 Press
- 10+2 DIGITS
- ICON MENU
- DOT MATRIX
- Plastic Keypad

Add-in Software

Pre-installed Software

Pre-installed add-in software comes installed on the calculator when you purchase it. You can use such software as-is, or you can delete it to free up memory.

- 3D Graph
- Geometry
- Picture Plot
- Conversion
- Phyisum

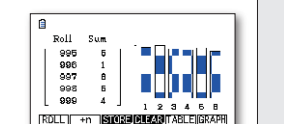
Add-in software can be downloaded from the CASIO website.

<http://edu.casio.com/dl/>



Probability Simulation*

Simulate probability events using dice roll, coin toss, or card draw and perform statistical analysis.



- Coin Toss
- Marble Grab
- Dice Roll
- Card Draw
- Spinner
- Random Numbers

* Downloading from the Web and user installation is required.

Please visit the website for details. <http://edu.casio.com/products/graphic/>



fx-CG50