CONTENTS

From the classroom to the office, CASIO has the calculator that's just right for you.

MODEL INDEX

Red numbers indicate new models.

Ⓑ Blister pack only. Ⓑ Blister pack available in addition to standard packaging.

FUNCTION SYMBOLS

Scientific Calculator/Financial Consultant

763 FUNCTIONS / over 1,500 FUNCTIONS — Number of functions

NATURAL V.P.A.M. / NATURAL TEXTBOOK — Natural V.P.A.M. display / Natural textbook display
Display expression same as textbook.

S-V.P.A.M. — (Super Visually Perfect Algebraic Method)
All the features of the existing V.P.A.M. series plus a new 2-line display and a useful Replay function. All this helps to make mathematics easier to use and easier to understand than ever before.

V.P.A.M. — (Visually Perfect Algebraic Method)
Calculations exactly as they are written. Calculation status symbols and intermediate display capabilities help make calculations easier.

STAT-data — STAT-data editor
Back-step viewing and editing of input data.

List-based STAT — List based STAT-data editor
Viewing and editing of input data in list format, showing data groups (x-data, y-data, frequency) and surrounding data.

Multi-replay — Multi-replay
Quick and easy recall of previously executed formulas for editing and re-execution.

10+2 DIGITS — 10 + 2 digits
10-digit mantissa + 2-digit exponential display.

ICON MENU — Icon menu
Specify the operation you want to perform by selecting an icon or inputting a number.

DOT MATRIX — Dot matrix display
High-resolution screen provides beautiful looking graphs every time.

TWO WAY POWER — Two-way power (Solar + Battery)
Solar powered in sunlight, battery powered when lighting is low.

Data communication with a personal computer
Allows data communication with a personal computer.

SUPER SOLAR — Super solar
Solar cell powers calculations even when lighting is relatively dim.

Plastic Keys — Plastic keys
Designed and engineered for easy operation.

Profit Margin % — Profit margin percent
% key gives quick access to prices and profits, and also delivers add-ons, discounts, ratios, increase/decrease values and regular percentages.

Function command signs
A symbol (+, −, ×, ÷) on the display indicates the type of operation you are currently performing.

Practical Calculator/Printing Calculator

DUAL DISPLAY — Dual display
Equipped with two LCD displays to allow performance of different calculations or viewing of two values.

EXTRA LARGE DISPLAY — Extra Large display
Larger display makes more data easier to read.

LARGE DISPLAY — Large display
Large, easy-to-read display.

TWO WAY POWER — Two-way power (Solar + Battery)
Solar powered when light is sufficient, battery powered when light is insufficient.

SUPER SOLAR — Super solar
Solar cell powers calculations even when lighting is relatively dim.

Key Rollover — Key rollover
Key operations are stored in a buffer, so nothing is lost even during high-speed input.

Plastic Keys — Plastic keys
Designed and engineered for easy operation.

Metal Faceplate — Durable metal Faceplate
Tough cover stands up to rough treatment.

COST SELL MAR — Cost/Sell/Margin
Calculate the cost, selling price, or margin of profit on an item, given the other two values.

Tax & Exch. — Tax & exchange function
Tax calculation and currency conversion functions.

TAX — Tax calculation
Automatic calculation of price plus tax, price less tax, discount, selling price, tax amount, discount amount, and margin amount.

TILT DISPLAY — Tilt Display
The degree of display can be adjusted freely.

Day Calcu. — Day/Date calculation
Day/Date calculations allow easy input and calculation of duration or date.

Time Calcu. — Time calculation
Time calculation allows easy input and calculation of hour, minute, and second values.

Profit Margin % — Profit margin percent
% key gives quick access to prices and profits, and also delivers add-ons, discounts, ratios and increase/decrease values.

% — Regular percent
Regular percentage calculations.

MU / MD — Mark-up/Mark-down
All the mark-up/mark-down capabilities of an adding machine for simplified cost and profit calculations.

BIG — Super command signs
Big, easy-to-read command signs show your current operation at a glance.

Function command signs
A symbol (+, −, ×, ÷) on the display indicates the status of operation you are currently performing.

Clock & Calendar
Printing the current time and date.

150 STEPS CHECK — 150 steps check
Displays up to 150 previous calculation steps.

LOCALIZED NUMBER DISPLAY — Localized number display
Displays numbers in three digit separator formats (Standard, European, and Indian). Choice of a comma or period as the decimal point.

LINE PRINT — Line printing
Line printing for higher speed, superior print quality, and quieter operation.

2 COLOUR PRINT — 2-colour printing
Positive values are shown in black, and negative values are shown in red for easy checking.

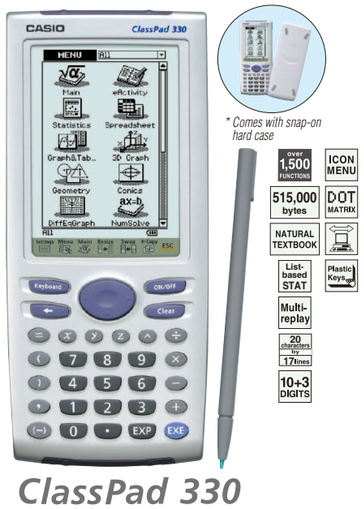
3.5 LINES/SEC. — 3.5 line-per-second printing
The value indicates the number of lines printed per second.

Heavy-duty durable keys
Keys are produced by injecting plastic of two different colours. Key markings are plastic, which means they do not wear or fade with use.

Ⓒ Clamshell packaging only. Ⓒ Clamshell packaging available in addition to window box. Ⓦ Window box only.

* Items without letter code are available with standard packaging only.

GRAPHIC MODELS WITH CAS CAPABILITY



ClassPad 330

* Comes with snap-on hard case

over 1,500 FUNCTIONS
ICON MENU
515,000 bytes
DOT MATRIX
NATURAL TEXTBOOK
List-based STAT
Plastic Keys
Multi-replay
20 characters by 17lines
10+3 DIGITS

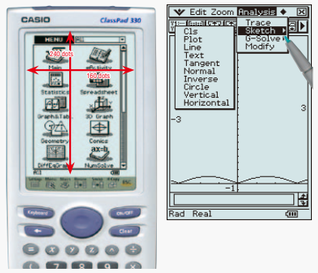
User-friendly Interface

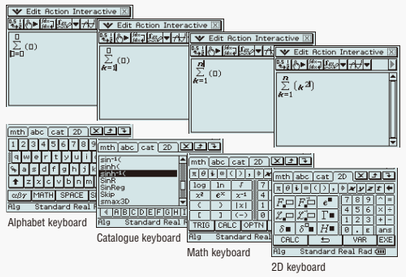
Pen Touch Operation

Intuitive stylus operation for entry of values and expressions, selection of menu commands, drag-and-drop copying of values and expressions, and much more. A big 160 × 240-dot LCD simplifies operation and shows more data per screen.

Natural Textbook Input and Output

Fractions, powers, and square roots, as well as high-level mathematical expressions such as log, Σ, $\int$, d/dx, lim, matrices, F (Fourier transforms), and L(Laplace transforms) can be entered and displayed just as they appear in your textbook. An on-screen soft keyboard helps to simplify entry of complex expressions.





ClassPad 330 Built-in Applications

Advanced CAS (Computer Algebra System)

Base-n capabilities have been added for general-purpose numerical and mathematical calculations. Natural input/output mathematical functions have been expanded to include F (Fourier transforms), L (Laplace transforms), δ, Γ, H, and more.

Differential Equation Application

The solution set of a differential equation can be represented graphically as a vector field, and solution curves can be drawn by providing initial conditions for the equation. First, second, and n-th order differential equations are supported.

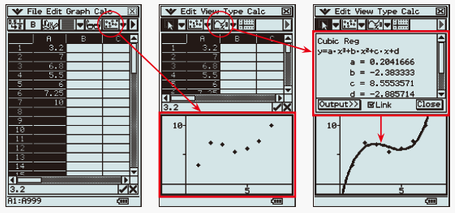
Financial Application

This ClassPad 330 application provides you with a total of 15 different financial calculations, including simple/compound interest, cash flow, amortization, depreciation, bond calculation, operating/financial leverage, and more.

Spreadsheet Application

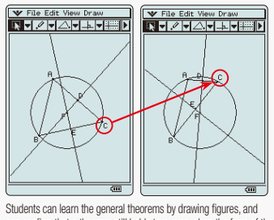
Improved Spreadsheet Application

Collected data can be organized and tabulated for analysis after statistical graphing is complete. Spreadsheet data also can be used in table calculations. In addition, ClassPad 330 adds the following functions: search, sort, data import from and export to lists, matrices, and variables, CellIf, and Histogram/Box-whisker graphing.



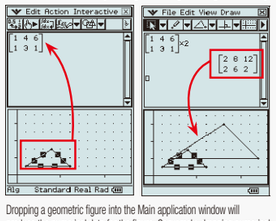
Geometry Application

Geometric Graphing



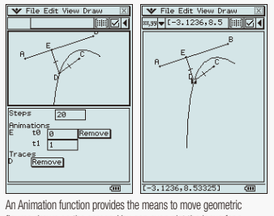
Students can learn the general theorems by drawing figures, and can confirm that a theorem still holds true even when the form of the triangle is altered.

Geometric Graphing Using Drag & Drop



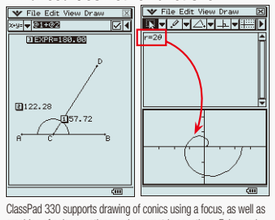
Dropping a geometric figure into the Main application window will produce the numerical data for the figure. Conversely, dropping numerical data into the Geometry window will produce the applicable figure.

Animation



An Animation function provides the means to move geometric figures drawn on the screen. You can even plot the locus for a particular point of the animation. The screenshot shows an example where Point D is plotted as the locus for Point E moving on Line AB.

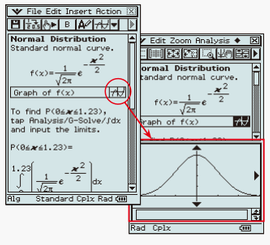
Enhanced Geometric Functions



ClassPad 330 supports drawing of conics using a focus, as well as graphing of polar equations and parametric equations. Enhanced labeling capabilities let you display attached angles, measurement-based calculation results, and more.

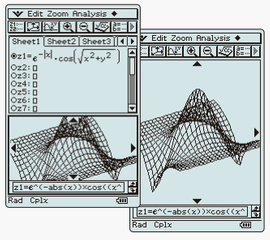
eActivity Application

An eActivity is like a digital worksheet that can be created and worked with on the ClassPad 330. All of the powerful features and capabilities of the ClassPad 330 can be incorporated into an eActivity. In addition to being able to perform the same calculations as the Main application, an eActivity will accept text entry, just like a word processor. Graphs, as well as Geometry and Spreadsheet data also can be stored in an eActivity file.



3D Graph Application

The 3D Graph Application lets you draw rectangular coordinate graphs ($z = f(x, y)$) and parametric function graphs ($xst = f(s, t)$, $yst = f(s, t)$, $zst = f(s, t)$). You can split the display screen between a 3D Graph Editor window and 3D Graph window, or enlarge the 3D Graph window to view a larger graph.



ClassPad 330 Specifications

ALGEBRA

- CAS (Computer Algebra System)
- Algebra Assistant
- Fractions • Transformation (simplify, expand, factor)
- Algebraic ($\sqrt{\ }$, x^2, x^{-1}, $x!$, $\sqrt[n]{\ }$, x^n)
- Simultaneous equations
- Real and Complex results • List • Matrix
- Combination nCr, Permutation nPr
- Exponents (log, ln, 10^x, e^x)
- Trigonometrics (sin, cos, tan, $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$)
- Angle unit (Degree, Radian, Grad)
- Function graphing, polar, parametric and $x = f(y)$ equations
- Numeric evaluation of functions in tables
- Graph solve (root, max, intersection, inflection, distance)
- Conics graphs (Parabola, Circle, Ellipse, Hyperbola, General figure)
- Conics graph solve (Focus, Vertex, Directrix, Symmetry, Center, Radius)
- Recursive and explicit sequence numerical tables and plots
- Number Base (base 2 (Bin), 8 (Oct), 10 (Dec) and 16 (Hex))
- Laplace transform, Fourier transform, Fast Fourier transform (FFT)

CALCULUS

- Hyperbolics (sinh, cosh, tanh, $\sinh^{-1}$, $\cosh^{-1}$, $\tanh^{-1}$)
- Integration, Differential
- Differential equation
- Σ, Π, lim • Dirac Delta, Heaviside Unit Step, Gamma

STATISTICS

- List-based one- and two-variable statistical analysis
- Statistical regression calculations
- Statistical plot (Scatter Plot, xyLine, Normal Probability Plot, Histogram, Box-whisker plot)
- Statistical regression graphs
- Advanced statistical calculations (Tests, Confidence Intervals and Distribution calculations)

GEOMETRY

- Constraint geometry (for education)
- Construction figures (Perpendicular, Midpoint, Intersection, Angle Bisector, Parallel, Tangent to Curve)
- Geometry figures (Circle, Arc, Ellipse, Hyperbola, Parabola, Triangle, Rectangle, n-gon, Point, Line Segment, Ray, Vector)
- Geometry animation
- Numeric evaluation of geometry animation in tables
- Labels (Text, Attached Angle, Measurement, Expression)

eACTIVITY APPLICATION

- eActivity creation • eActivity exploration (execution)
- Geometry-Link in eActivity

OTHER USEFUL FEATURES

- Drag & drop • Natural format input of equations and expressions
- Natural format display of results • Math, Alphabet, 2D soft keyboards
- Command catalogue soft keyboard • Calculation History
- Mantissa + exponent: 15 + 3 • Interactive manipulation for solving equations
- 3-dimensional graphs • Differential equation graphs
- Numeric equation solver • Financial calculations • Presentation feature
- Program storage capacity: 500 KB (max) • Icon menus
- Full screen display/Split screen display
- Software upgradeability (maintenance, feature upgrades)
- User-defined variable • User-defined function (extends built-in functions)
- Folder-based memory management • Unit-to-unit screen image transfer
- Resetting/Initializing memory • Selectable display language
- Auto Power Off (APO) • Ending Screen/User-defined Ending Screen
- Bundled program-link software FA-CP1: This data transfer software runs on a Windows computer. You can use it to transfer certain ClassPad unit files and to back up all ClassPad unit data on your computer. You can also transfer ClassPad unit screen captures to your computer.

HARDWARE

- Dimensions: 21.0(H) × 84.0(W) × 189.5(D) mm
- Approximate weight: 280g
- Battery type: Four AAA-size batteries LR03 (AM4)
- Battery life: Approx. 140 hours continuous operation (assuming 5 minutes calculation and 55 minutes display per hour)
- Display type: 160 × 240-dot LCD
- Touch Panel (Pen Touch Operation) • User-available RAM: 500 KB
- User-available Flash ROM (Add-in area): 5.3 MB
- Data communication (via USB and 3-pin cables)
- USB cable for connecting with PC
- 3-pin cable for connecting with other ClassPad unit or EA-200

OPTIONS

- ClassPad Manager Version 3.0 FA-CP330A/B • EA-200 Data Analyzer
- OH-ClassPad 330 SET (Overhead projection model)

Latest OS update for ClassPad 300 series:
http://edu.casio.com/dl/

ALGEBRA FX 2.0 PLUS

over 1,500 FUNCTIONS
146,000 bytes
768KB Flash Memory
List-based STAT
21 characters by 8 lines
10 DIGITS
10+2 DIGITS
ICON MENU
DOT MATRIX

- Large display (128 × 64 dots)
- Algebra Applications (Computer Algebra System, Algebra, Tutor) • Graphic functions and Graph solve functions • Dynamic graph
- Dual graph (Graph and Table, Graph and Graph)
- Conic section graph • Complex functions
- List function and list-based statistics
- Statistic calculations and graphs
- Graph solve • Integrations
- Differential and quadratic differential calculations
- BASIC-like program functions
- Linear equations from 2 to 30 unknowns
- 2 to 30 order equations
- Matrix operations with complex numbers
- Base-n calculations/conversions
- Add-in application with Flash Memory
- Includes a connecting cable for data transfer between two units
- Data communication (requires optional FA-124USB for connecting with PC)

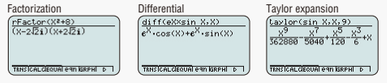
*Comes with slide-on hard case

Main Functions

Algebra Applications

Computer Algebra System (CAS)

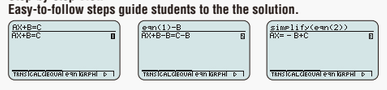
Using the Computer Algebra System (CAS), students can factor expressions, find limits of functions and calculate derivatives, integration and Taylor series expressions.
The CAS is a CASIO original algebra system that was devised through the cooperation of CASIO engineers, Profession John Kenelly, and other math instructors. It directly incorporates advice and suggestions from math teachers.



Algebra

Easy equation manipulation by students
The Algebra application makes it possible for students to expand and simplify equations on their own as they derive solutions. After learning to solve problems using the Tutor application (see below), students can use the Algebra application to master the steps of solving algebra problems.

Step-by-step View
Easy-to-follow steps guide students to the the solution.



Tutor

Like having your own personal tutor always on hand to guide you along the way!
The TUTOR application guides student to the final solution, much like a teacher does in the classroom. The TUTOR application has three modes.
- Auto • Manual • Verify

Graphic Models

With Natural-V.P.A.M. and backlit display.
The next-generation graphic scientific calculator.

fx-9860GII SD
• SD memory card not included

fx-9860GII

over 2,900 FUNCTIONS | 10+2 DIGITS
62,000 bytes | ICON MENU
NATURAL V.P.A.M | DOT MATRIX
List-based STAT | Plastic Keys
Multi-replay | SD CARD
21 characters by 8 lines

*SD model only.

** Comes with slide-on hard case.*

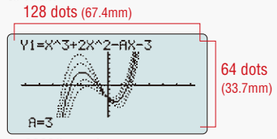
User-friendly Interface

- 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) • Dynamic graph • Conic section graph
- Recursion graph • List-based one-variable and two-variable statistical analysis
- Statistical regression calculations • Statistical plot (scatter plot, xyLine, normal probability plot, histogram, box plot) • Statistical regression graphs (linear, med-med, quadratic, cubic, quartic, logarithmic, exponential, power, sinusoidal, logistic regression) • Advanced statistical calculations: tests (Z-test, t-test, Chi square test, F-test, ANOVA), intervals (Z-interval, t-interval), distributions • Pie chart • Bar graph
- Power functions (square root, cubic root, square, power, radical root) • GCD/LCM • Coordinate conversion (Pol, Rec)
- Combination/Permutation (nCr, nPr) • Factorial, Inverse, random numbers, Fractions • Logical operations • Matrix calculations
- Complex number calculations • Base-n calculations/conversions • List data calculations • Metric Conversion • Natural format equation output • Calculation history • Spreadsheet and statistical plot • Numeric equation solver, simultaneous equations, polynomial equations • Financial calculations • Programming • Icon menu • SD memory card slot (fx-9860GII SD only)
- Data communication • User memory: 62,000 bytes, User Storage memory: 1.5 M bytes

Hardware Features

High-resolution LCD

The large 64 × 128-dot display of the fx-9860GII Series high-resolution LCD produces formulas, graphs and graphics that are sharper, clearer, and easier to read.



fx-9860GII series
Large 64 × 128 dot display.

Backlight on

High-speed CPU

A high-performance, high-speed CPU gives fx-9860GII Series calculators processing speeds that are three to five time faster than other brand calculators in their class. Processes and plots encountered in complex calculations and graphics are handled with ease, for enhanced operational efficiency and learning as well.

Large-capacity 1.5MB Flash Memory

An ample 1.5MB of Flash Memory capacity allows worry-free downloading and storage of data and applications.

Out-of-the-box USB Operations

A USB cable, unit-to-unit cable and Program-Link Software all are included with the calculator, so high-speed data communication with a computer as well as unit-to-unit data and program transfers can be performed virtually out of the box.

SD Memory Card Slot (SD model only)

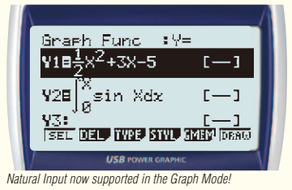
The fx-9860GII SD is equipped with an SD memory card slot for easy data transfers.

Natural textbook display!

NATURAL-V.P.A.M.

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.

Natural Input

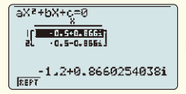


Natural Input now supported in the Graph Mode!

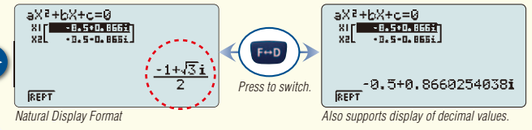
Natural Output

Polynomial equation result

Previous Models



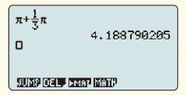
Natural Output Model



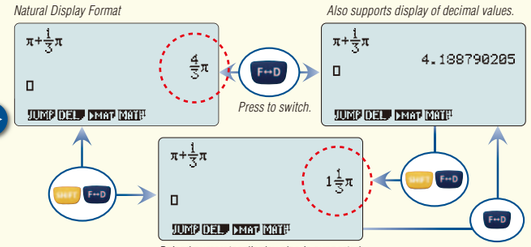
Natural Display Format
Also supports display of decimal values.

Result of expression with Pi symbol

Previous Models

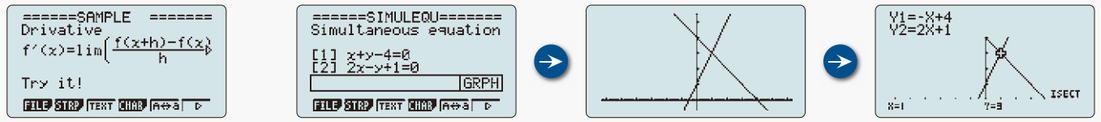


Natural Output Model



eActivity

fx-9860GII Series calculators come with the same eActivity capabilities that originally appeared on the ClassPad 330. Now teachers as well as students can create their own problems and study materials. Students get the opportunity to learn at their own pace for more efficient study both at school and at home. eActivity is a great motivator for learning and understanding.



Built-in Software

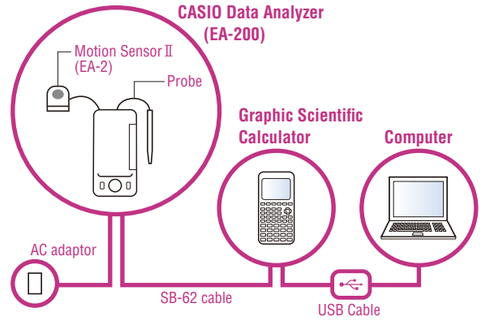
Spreadsheet

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

E-CON2

E-CON2 provides total control over the optional EA-200 Data Analyzer. It makes it possible to measure changes in temperature, sound, or speed using the EA-200 without any troublesome settings or program input.

EA-200/E-CON2 System Configuration



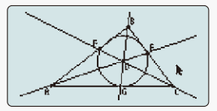
Add-in Software

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.

Geometry

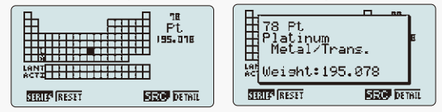
Geometry add-in software is designed to make learning geometry fun.



Downloadable Software

Physium

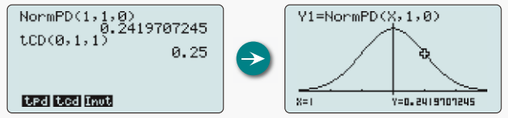
The Physium add-in provides instant access to the periodic table of elements, whose data can be used in calculations. Often-use elements and atomic symbols can be stored for quick and easy recall whenever you need them.



Add-in software can be downloaded from the CASIO website.
http://edu.casio.com/dl/

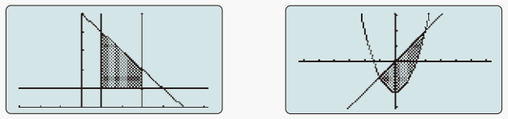
Other Features

Probability



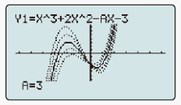
Normal distribution, student's *t*-distribution, and other often-used statistical calculations are provided in function format for easier practical application.

Inequality Graphing

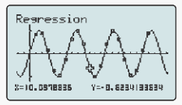


New support for graphing the inequality of an $x=$Constant graph and $x=f(y)$ graph allows study of the area for which the x-range is defined.

Icon menu



Dynamic graph



Regression graph

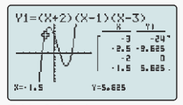
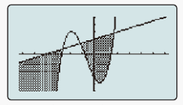
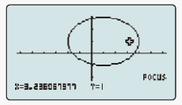


Table & Graph

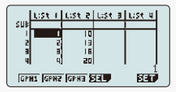


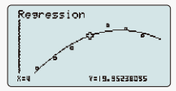
Integration graph



Conic section graph

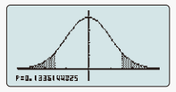
List-based Statistics





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.

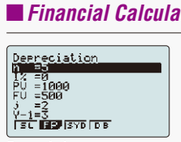
Advanced Statistics



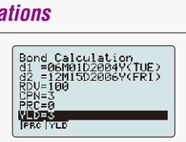
Perform tests, confidence interval, probability distribution, and other calculations and graphing.

1-sample *t*-test graph

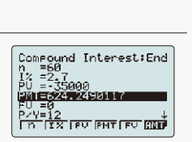
Financial Calculations



Depreciation



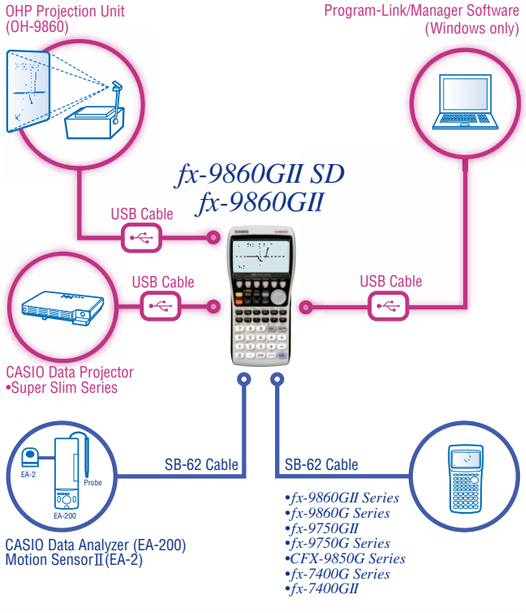
Bond calculation



Compound interest

- Depreciation
- Bond calculation
- Simple interest
- Compound interest
- Investment appraisal (cash flow)
- Amortization
- Interest rate conversion (annual percentage rate and effective interest rate)
- Cost, selling price, or margin
- Day or date calculations

Peripherals



New features give you the tools to create outstanding classroom presentations!

fx-9750GII

over 2,800 FUNCTIONS · 10+2 DIGITS · 62,000 bytes · ICON MENU · List-based STAT · DOT MATRIX · Multi-replay · 21 characters by 8 lines · Plastic Keys

* Comes with slide-on hard case.

POWER GRAPHIC

- Dot matrix display (64 × 128 dots) • Probability • Inequality Graphing
- Rectangular coordinate graphing, Polar coordinate graphing
- Integration graph • Parametric function 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) • Dynamic graph • Conic section graph • Recursion graph
- List-based one-variable and two-variable statistical analysis • Statistical regression calculations • Statistical plot (scatter plot, xy Line, normal probability plot, histogram, box plot) • Statistical regression graphs (linear, med-med, quadratic, cubic, quartic, logarithmic, exponential, power, sinusoidal, logistic regression) • Advanced statistical calculations: tests (Z-test, t-test, Chi square test, F-test, ANOVA), intervals (Z-interval, t-interval), distributions • Pie chart • Bar graph • Power functions (square root, cubic root, square, power, radical root) • GCD/LCM • Coordinate conversion (Pol, Rec) • Combination/Permutation ($_nC_r$, $_nP_r$) • Factorial, Inverse, random numbers, Fractions • Logical operations • Matrix calculations
- Complex number calculations • Base-n calculations/conversions
- List data calculations • Metric Conversion • Numeric equation solver, simultaneous equations, polynomial equations • Programming • Icon menu
- User memory: 62,000 bytes • Data communication • USB port

fx-7400GII

over 2,100 FUNCTIONS · 10+2 DIGITS · 20,000 bytes · ICON MENU · List-based STAT · DOT MATRIX · Multi-replay · 21 characters by 8 lines · Plastic Keys

* Comes with slide-on hard case

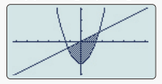
POWER GRAPHIC

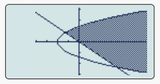
- High-definition display (64×128 dots) • Inequality Graphing
- Polar Graph • $X=$ Graph • Graph Solve Function (Root, Intersection)
- Sketch (Tangent) • Bar Graph/Pie Chart • Random Number Function
- Quotient, Remainder • String Functions • Unit Conversion
- Solve Calculations (EQUA mode) • GCD/LCM
- 12 Types of Regression • Complex Calculations
- Catalog Function • Polynomial Function (EQUA mode)
- Simultaneous Functions (EQUA mode) • Base-n Calculation
- Display Language Setting • Data communication (requires optional 3-pin cable, FA-124 USB for connecting with PC)

Main Functions

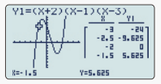
Inequality Graphing

Supports graphing of $X>f(y)$, inequalities.



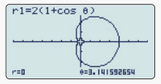


Graph & Table

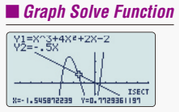


Polar Graph

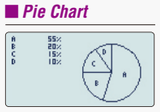
Supports graphing of polar type graphs.



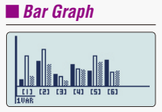
Graph Solve Function



Pie Chart



Bar Graph



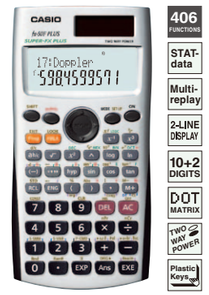
Programmable Models

664 FUNCTIONS · 28,500 bytes · NATURAL TEXTBOOK · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

SUPER-FX PLUS
fx-5800P

Natural Textbook Display and MORE POWERFUL Program Functions

- Program function • Matrix calculations
- Differential and integration • Recursions
- Solve function • Complex number calculations
- Base-n calculations • Data transmission between two fx-5800P calculators • 26 to 2398 variables
- Fraction calculations • 40 scientific constants
- 128 built-in formulas • Multi-replay function
- Statistics (List-based Statistics, Standard deviation, Regression analysis) • Integrated hard case swings back a full 360 degrees.



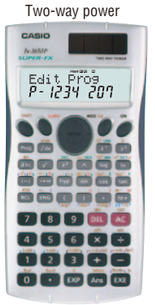
406 FUNCTIONS · STAT-data · Multi-replay · 2-LINE DISPLAY · 10+2 DIGITS · DOT MATRIX · TWO WAY POWER · Plastic Keys

SUPER-FX PLUS
fx-50F PLUS
fx-50FH HKEAA approved model

BASIC-like Program, Perfect Algebraic Method, 2-line Display, Multi-replay Function

- Program function • Multi-replay function
- 2-line display • Fraction calculations
- Combination and permutation • 23 built-in formulas • 40 scientific constants
- Statistics (STAT-data editor, Standard deviation, Regression analysis)
- 7 variables • Plastic keys
- Comes with slide-on hard case

Two-way power



279 FUNCTIONS · STAT-data · Multi-replay · 2-LINE DISPLAY · 10+2 DIGITS · DOT MATRIX · Plastic Keys

Button-type battery

SUPER-FX
fx-3650P

SUPER-FX
fx-3950P

Multi-replay Function, 2-line Display, Perfect Algebraic Method

- Program function • Multi-replay function
- 2-line display • Fraction calculations
- Combination and permutation • Differential and integration • Statistics (STAT-data editor, Standard deviation, Regression analysis)
- Base-n calculations/conversions
- Logical operations • Complex number calculations • 7 variables
- Plastic keys • Comes with snap-on hard case

242 FUNCTIONS · 2-LINE BIG DISPLAY · 10+2 DIGITS · DOT MATRIX · Plastic Keys

fx-4500PA

2-line Display and Program File System

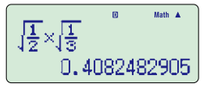
- 2-line display shows formulas and results simultaneously • Versatile program area management: up to 1,103 program steps, and 26 (standard) to 163 variables
- Program file system for storing multiple programs • Replay function
- Engineering symbol calculations
- Formula memory • Integrations
- Statistics (Standard deviation, Regression analysis) • Base-n calculations/conversions
- Logical operations

STANDARD MODELS

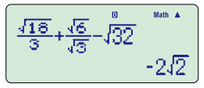
Natural textbook display! NATURAL-V.P.A.M.

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.

■ Natural input
Input expressions and arithmetic operations as they appear in written form.



■ Natural output
Calculation results appear in the same format as they are written.



■ Full-dot display
Equations and statistical data are displayed in a clear, easy-to-read format.

*Conventional input method can also be used.

New feature! No one upgrades the classroom environment like CASIO!

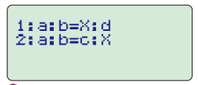
Ratio calculation (95ES PLUS)

Select the ratio type and enter the non-x coefficients…

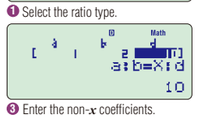
$a:b=x:d \rightarrow 1:2=x:10$

The calculator displays the value of x.

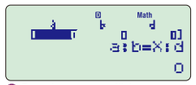
$x=5$



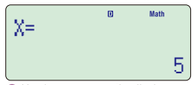
❶ Select the ratio type.



❸ Enter the non-x coefficients.



❷ Enter the non-x coefficients.



❹ X-value appears on the display.

New equation mode (95ES PLUS) (570ES PLUS) (991ES PLUS)

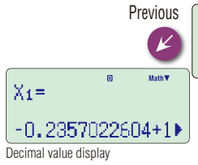
Input an equation…

$3x^2+\sqrt{2}\,x+5=0$

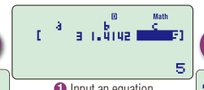
The calculator displays a solution using $\sqrt{\ }$ and fractions.

$x=-\frac{\sqrt{2}}{6}\pm\frac{\sqrt{58}}{6}i$

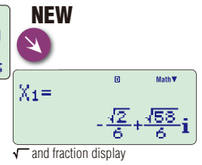
Previous / NEW



Decimal value display



❶ Input an equation.



√ and fraction display

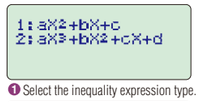
Inequality (95ES PLUS)

Select the inequality type and enter the non-x coefficients…

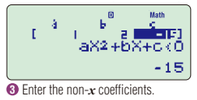
$x^2+2x-15<0$

The calculator displays the solution of the inequality

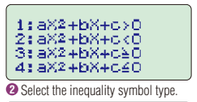
$-5<x<3$



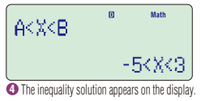
❶ Select the inequality expression type.



❸ Enter the non-x coefficients.



❷ Select the inequality symbol type.



❹ The inequality solution appears on the display.

The ES PLUS Series now is easier to use than ever!

Prime factorization (82ES PLUS) (85ES PLUS) (350ES PLUS) (95ES PLUS)

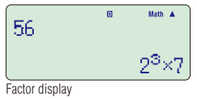
Determine the integers for a sum of –15 and a product of 56…

Problem:Factor $x^2-15x+56$.
Result: $(x-8)(x-7)$

Input 56.

The calculator displays the factors.

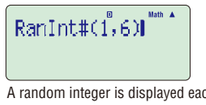
$56=2^3\times7$

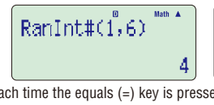


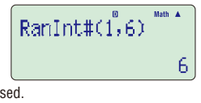
Factor display

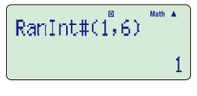
Random integers (82ES PLUS) (85ES PLUS) (350ES PLUS) (95ES PLUS) (570ES PLUS) (991ES PLUS)

Specify the range of random integers you want to generate… → The calculator displays a random integer.





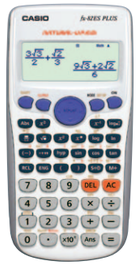




A random integer is displayed each time the equals (=) key is pressed.

Natural-V.P.A.M. Models

AAA-size (R03) battery



252 FUNCTIONS · NATURAL V.P.A.M. · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

(Black) *(White)*

fx-82ES PLUS

Two-way power

252 FUNCTIONS · NATURAL V.P.A.M. · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

fx-85ES PLUS

AAA-size (LR03) battery

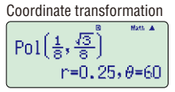
252 FUNCTIONS · NATURAL V.P.A.M. · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

fx-350ES PLUS

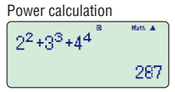
New functions: • Prime factorization • Random integers

Standard functions:
• Fraction calculations • Combination and permutation • Statistics (List-based STAT data editor, standard deviation, regression analysis)
• 9 variables • Table function • Comes with new slide-on hard case

Coordinate transformation

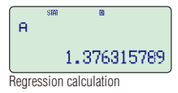


Power calculation

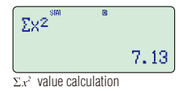


Statistics

Data registration

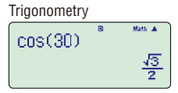


Regression calculation



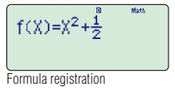
Σx^2 value calculation

Trigonometry

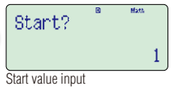


* During trigonometric calculations,only values that are a multipleof 15 can be displayed using square root form.

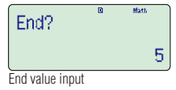
Table function



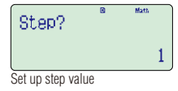
Formula registration



Start value input



End value input



Set up step value

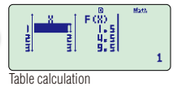
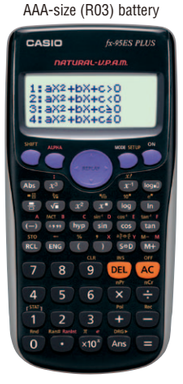


Table calculation

AAA-size (R03) battery



274 FUNCTIONS · NATURAL V.P.A.M. · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

fx-95ES PLUS

New functions: • Prime factorization • Ratio calculation • New equation mode • Inequality • Random integers

Standard functions:
• Fraction calculations • Combination and permutation • Statistics (List-based STAT data editor, standard deviation, regression analysis)
• 9 variables • Table function • Comes with new slide-on hard case

fx-82ES PLUS/85ES PLUS/350ES PLUS functions, in addition to:
• Equation calculations

Equation menu

Simultaneous linear equations

Quadratic equation

Cubic equation

AAA-size (R03) battery

417 FUNCTIONS · NATURAL V.P.A.M. · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

fx-570ES PLUS

Two-way power

417 FUNCTIONS · NATURAL V.P.A.M. · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

fx-991ES PLUS

New functions: • New equation mode • Random integers

Standard functions:
• Fraction calculations • Combination and permutation
• Statistics (List-based STAT data editor, standard deviation, regression analysis)
• 9 variables • Table function • Comes with new slide-on hard case

fx-82ES PLUS/85ES PLUS/350ES PLUS functions, in addition to:
• Equation calculations • Integration/differential calculations • Matrix calculations
• Vector calculations • Complex number calculations • CALC function
• SOLVE function • Base-n calculation

Integration

Complex number calculations

Differential

Vector

Matrix operations

Natural Display Models

AAA-size (R03) battery

fx-82ES

Two-way power

fx-85ES

AAA-size (LR03) Alkaline battery

fx-350ES

249 FUNCTIONS · NATURAL TEXTBOOK · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

- Fraction calculations
- Combination and permutation
- Statistics (List-based STAT data editor, standard deviation, regression analysis)
- 7 variables
- Table function
- Comes with new slide-on hard case

AAA-size (R03) battery

fx-500ES

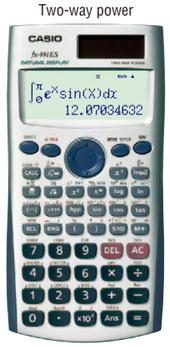
253 FUNCTIONS · NATURAL TEXTBOOK · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

- Fraction calculations
- Combination and permutation
- Statistics (List-based STAT data editor, standard deviation, regression analysis)
- 7 variables
- Table function
- Comes with new slide-on hard case

fx-82ES/85ES/350ES functions, in addition to:

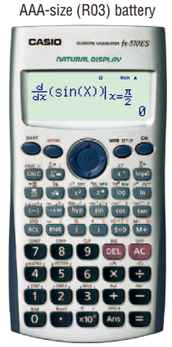
- Equation calculations

Two-way power



fx-991ES

AAA-size (R03) battery



fx-570ES

403 FUNCTIONS · NATURAL TEXTBOOK · List-based STAT · Multi-replay · 10+2 DIGITS · DOT MATRIX · Plastic Keys

- Fraction calculations
- Combination and permutation
- Statistics (List-based STAT data editor, standard deviation, regression analysis)
- 7 variables
- Table function
- Comes with new slide-on hard case

fx-82ES/85ES/350ES functions, in addition to:

- Equation calculations
- Integration/differential calculations
- Matrix calculations
- Vector calculations
- Complex number calculations
- CALC function
- SOLVE function
- Base-*n* calculation

S-V.P.A.M. Models

AA-size battery

fx-82MS

- Fraction calculations • Combination and permutation
- Statistics (STAT-data editor, Standard deviation, Regression analysis)
- 9 variables • Comes with slide-on hard case

Two-way power

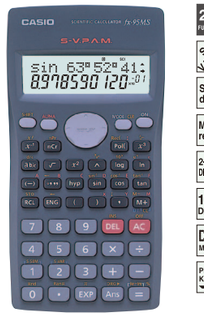
fx-85MS

Button-type battery

fx-350MS

240 FUNCTIONS · S-V.P.A.M. · STAT-data · Multi-replay · 2-LINE DISPLAY · 10+2 DIGITS · DOT MATRIX · Plastic Keys

AA-size battery



fx-95MS

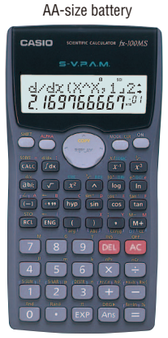
244 FUNCTIONS · S-V.P.A.M. · STAT-data · Multi-replay · 2-LINE DISPLAY · 10+2 DIGITS · DOT MATRIX · Plastic Keys

- Fraction calculations
- Combination and permutation
- Statistics (STAT-data editor, Standard deviation, Regression analysis)
- 9 variables
- Comes with slide-on hard case

fx-82MS/85MS/350MS functions, in addition to:

- Equation calculations

AA-size battery



fx-100MS

Two-way power

fx-115MS

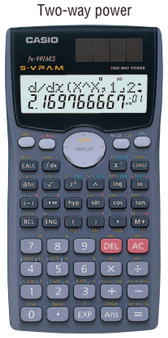
300 FUNCTIONS · S-V.P.A.M. · STAT-data · Multi-replay · 2-LINE DISPLAY · 10+2 DIGITS · DOT MATRIX · Plastic Keys

- Fraction calculations
- Combination and permutation
- Statistics (STAT-data editor, Standard deviation, Regression analysis)
- 9 variables
- Comes with slide-on hard case

fx-82MS/85MS/350MS functions, in addition to:

- Equation calculations
- Integration/differential calculations
- Base-*n* calculations/conversions
- Complex number calculations

Two-way power



fx-991MS

Button-type battery

fx-570MS

401 FUNCTIONS · S-V.P.A.M. · STAT-data · Multi-replay · 2-LINE DISPLAY · 10+2 DIGITS · DOT MATRIX · Plastic Keys

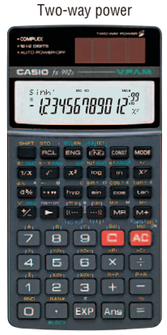
- Fraction calculations
- Combination and permutation
- Statistics (STAT-data editor, Standard deviation, Regression analysis)
- 9 variables
- Comes with slide-on hard case

fx-82MS/85MS/350MS functions, in addition to:

- Equation calculations
- Integration/differential calculations
- Base-*n* calculations/conversions
- Complex number calculations
- Matrix calculations
- Vector calculations
- 40 scientific constants

V.P.A.M. Model

Two-way power



fx-992s

Built-in complex number calculations plus 128 scientific constants

383 FUNCTIONS · V.P.A.M. · 12+2 DIGITS

- Statistical calculations
- Engineering symbol calculations
- Base-*n* calculations/conversions

** Comes with slide-on hard case*

School Cal

Tough, durable design with classroom features.

SL-450L

8 DIGITS

SUPER SOLAR · Plastic Keys · Profit Margin % · ×÷+−

- Display: LCD • Digits: 8
- Simple algebraic logic
- Independent memory • %
- Profit Margin % • √ • +/−
- 3-digit comma markers
- Power supply: solar
- Dimensions: 7.8(H) × 67(W) × 120(D) mm
- Approximate weight: 47 g

** Comes with slide-on hard case*

Financial Consultant

Two-way power

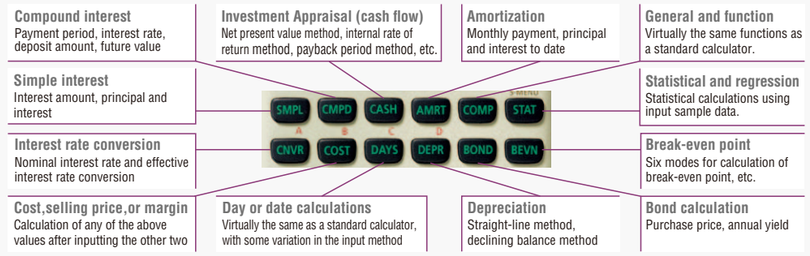
FINANCIAL CONSULTANT
FC-200V

4-LINE DISPLAY · DOT MATRIX · 10+2 DIGITS · Plastic Keys

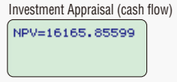
Powerful, original Financial Consultant features take much of the work out of financial calculations!

Direct mode key

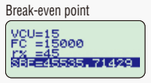
A bank of mode keys provides you with one-touch access to the mode you need.



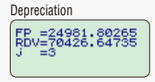
Investment Appraisal (cash flow)



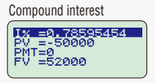
Break-even point



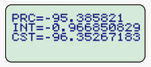
Depreciation



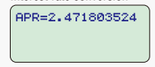
Compound interest



Bond calculation



Interest rate conversion



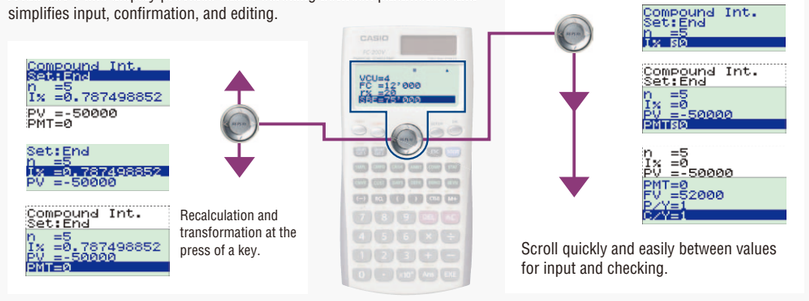
	FC-200V	FC-100V
Simple interest	●	●
Compound interest	●	●
Investment Appraisal (cash flow)	●	●
Amortization	●	●
Interest rate conversion	●	●
Cost,selling price,or margin	●	●
Day or date calculations	●	—
Depreciation	●	—
Bond calculation	●	—
Break-even point	●	—
General and Function	●	●
Statistical and regression	●	●

FINANCIAL CONSULTANT
FC-100V

- Plastic keys
- Comes with new slide-on hard case
- Power supply:
  Solar cell and a single G13 type button battery (LR44) (FC-200V)/
  One AAA-size battery (FC-100V)
- Approximate battery life:
  3 years (1hour of operation per day) (FC-200V)/ 17,000 hours continuous display of flashing cursor (FC-100V)
- Dimensions:
  FC-200V/12.2(H) × 80(W) × 161(D) mm,
  FC-100V/13.7(H) × 80(W) × 161(D) mm
- Approximate weight:
  FC-200V/105g, FC-100V/110g

Easy operation with parameters

A full-dot 4-line display provides easier scrolling between parameters and simplifies input, confirmation, and editing.



■ *Calculate the result.*

The result appears immediately after you press the SOLVE key.

■ *Create shortcuts.*

Once you use a parameter value or setting in a calculation, you can assign it to a shortcut key for instant recall whenever you need it. This feature is great for repeat calculations.

Supporting options in the Classroom

SUPPORT CLASSROOM with TECHNOLOGY

Data Analysis System — Quick and accurate collection supports data analysis.

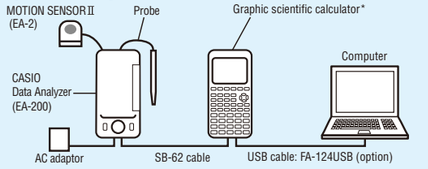
EA-200

- Collect data at rates of up to 50,000 points per second for up to 120,000 points.
- Compatible with the CASIO fx-7400 series, CFX-9850 series, ALGEBRA FX 2.0 series, fx-9860G series, fx-9750G series and ClassPad series.

Includes:
- CASIO Data Analyzer
- Temperature probe
- Optical probe
- Voltage probe
- Data communication cable: SB-62
- AC adaptor: AD-A60024
- Soft case
- Four AA-size alkaline batteries

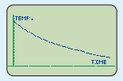
** Data trasfer to Classpad series is possible only via main 3-pin port, not via sub ports.*

System Configuration



Example of changing temperature data over time

(drop in temperature of hot water)



*ClassPad 330/fx-9860GII SD/fx-9860GII /fx-9860G Slim/fx-9860G SD/fx-9860G/ fx-9750GII /ClassPad 300 PLUS/ClassPad 300/ALGEBRA FX 2.0 PLUS/FX 1.0 PLUS/ ALGEBRA FX 2.0/FX 1.0/CFX-9850GB PLUS/CFX-9850GC PLUS/CFX-9950GB PLUS/ fx-9750G/fx-9750G PLUS/fx-9750GA PLUS/fx-7450G/fx-7400G PLUS/fx-7400GII / RM-ALGEBRA FX 2.0/RM-ClassPad PLUS/RM-7000/RM-9000/RM-9850Ga PLUS/ OH-ClassPad 330/OH-ALGEBRA FX2.0/OH-9000/VI-9850Ga PLUS/VI-9850GB PLUS

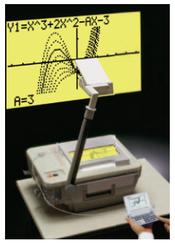
MOTION SENSOR II

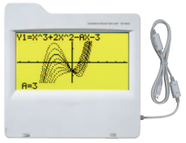
EA-2

*Supplies extremely limited

The EA-2 emits ultrasonic pulses and detects pulses returned as echoes from the target. It can be connected to the CASIO EA-200 Data Analyzer to accumulate and analyze data.

OHP Projection Unit





OH-9860

Makes lessons more interesting

Simply use a USB cable to connect an fx-9860GII SD, fx-9860GII, fx-9750GII or fx-9860G series calculator to the OH-9860 to project the contents of the calculator display. This option lets students or teachers connect and project for classroom presentations. All of this makes class activities more interesting and challenging, and improves student learning and understanding.

A powerful classroom presentation tool! OHP projects display contents onto a big screen!

OH-300ES PLUS
OH-300ES
OH-300MS

- OH-300ES PLUS provides the same powerful functions as the fx-82ES PLUS/85ES PLUS/350ES PLUS.
- OH-300ES provides the same powerful functions as the fx-82ES/85ES/350ES.
- OH-300MS provides the same powerful functions as the fx-82MS/85MS/350MS.

Simply place this transparent option onto an OHP to project its image and explain both screen contents and key operations.

Graphic Scientific Calculator Projection Set

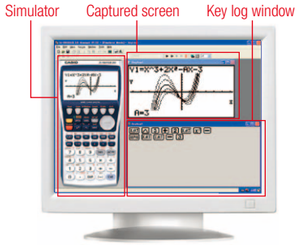
Simply place the supplied calculator onto an OHP unit to project screen contents onto a screen for easy viewing by everyone in the classroom. The calculator can be controlled remotely by a hand-held calculator.

All the functions of the ClassPad 330

OH-ClassPad 330 SET

Includes:
- Graphic scientific unit: OH-ClassPad 330 (same functions as ClassPad 330)
- Projection unit: OH-30
- Data transfer cable: SB-62
- PC-Link cable: USB
- Carrying bag

Software



FA-9860A Ver. 2.0 • fx-Manager PLUS (Single License)

FA-9860B Ver. 2.0 • fx-Manager PLUS (School License)

- fx-9860GII SD, fx-9860GII, fx-9750GII or fx-9860G series Calculator Emulation
  Mimics calculator operation using a computer mouse and keyboard.
- Copy and paste between the Spreadsheet application and Excel®
- Key-Log Editor Key-Log auto play of recorded key operations
  Step playback
- Emulator LCD screen capture • Screen Receiver

System Requirements
- *Operating System: Windows® 2000 Professional, Windows® XP Home Edition, Windows® XP Professional (32-bit), Windows Vista® (32-bit) , Windows® 7 (32-bit/64-bit)*
- *Others: Microsoft® Excel® 2000, Microsoft® Excel® 2003, or Microsoft® Excel® 2007*
- *USB port*
- *CD-ROM drive*
- *Display resolution : XGA or higher*

FA-124USB Data Communication Package

ClassPad Manager for ClassPad 330 Ver. 3.0
- **FA-CP330A Ver. 3.0 (Single License)**
- **FA-CP330B Ver. 3.0 (School License)**

- Laplace Transform/Fourier Transform
- Geometry Application • Financial Function
- Differential Equation Application
- Spreadsheet Application • Data communication with ClassPad 330 series calculators

System Requirements
- *Operating Systems: Windows® 2000 Professional, Windows® XP Home Edition, Windows® XP Professional (32-bit), Windows Vista® (32-bit) , Windows® 7 (32-bit/64-bit)*
- *USB port*
- *CD-ROM drive*
- *Display resolution : XGA or higher*

FC EMULATOR
(for FC-100V/FC-200V)

Easy emulator image resizing
Easy LCD window resizing
Easy captured LCD image resizing

- Emulation of FC-100V/200V
  Emulation of FC-100V/200V calculator operation using your computer mouse and keyboard.
- Basic KeyLog (Copy and paste only)
- Emulator LCD screen image capture

System Requirements
- *Operating Systems: Windows® 2000 Professional, Windows® XP Home Edition, Windows® XP Professional (32-bit), Windows Vista® (32-bit), Windows® 7 (32-bit)*
- *CD-ROM drive*
- *Display resolution : XGA or higher*

fx-ES Emulator (for fx-82ES Series)

fx-ES PLUS Emulator
(for fx-82ES PLUS Series)

Easy emulator image resizing
Easy LCD window resizing
Easy captured LCD image resizing

- Emulation of fx-82ES Series and fx-82ES PLUS Series
  Emulation of fx-82ES Series and fx-82ES PLUS Series calculator operation using your computer mouse and keyboard.
- Emulator LCD screen image capture

System Requirements
- *Operating Systems: Windows® 2000 Professional, Windows® XP Home Edition, Windows® XP Professional (32-bit), Windows Vista® (32-bit), Windows® 7 (32-bit)*
- *CD-ROM drive*
- *Display resolution : XGA or higher*

Scientific Calculators Specification Table

		Graphic Models						Programmable Models				
		ClassPad 330	ALGEBRA FX 2.0 PLUS	fx-9860GII SD	fx-9860GII	fx-9750GII	fx-7400GII	fx-5800P	fx-50F PLUS fx-50FH	fx-3650P	fx-3950P	fx-4500PA
Specifications	Number of functions	(Over 1,500)*6	Over 1,500	(Over 2,900)*6	(Over 2,900)*6	(Over 2,800)	(Over 2,100)	664	406	279	279	242
	Power supply (Main)	AAA × 4	AAA × 4	AAA × 4	AAA × 4	AAA × 4	AAA × 4	AAA × 1 (LR03)	Two-way power (Solar + LR44 × 1)	Two-way power (Solar + LR44 × 1)	LR44 × 1	CR2032 × 1
	Power supply (Backup)	—	CR2032 × 1	—	—	—	—	—	—	—	—	CR2032 × 1
	Approximate battery life Main (hours)	140 (LR03)*1	140 (R03)*2/ 230 (LR03)*2	200 (LR03)*1	200 (LR03)*1	230 (LR03)*1	230 (LR03)*1	1 year*3	3 years (LR44)*3	3 years (LR44)*3	9,000*4/ 3 years*5	5,000*4
	Approximate battery life Backup (years)	—	2	—	—	—	—	—	—	—	—	2
	Dimensions H×W×D(mm)	21 × 84 × 189.5	19.5 × 82 × 178	21.2 × 91.5 × 184	21.2 × 91.5 × 184	21.3 × 87.5 × 180.5	21.3 × 87.5 × 180.5	15.1 × 81.5 × 163	12.2 × 80 × 161	11.8 × 80 × 159	11.8 × 80 × 159	9.9 × 73 × 141.5
	Approximate weight (g)	280	213	225	220	205	205	150	105	100	100	85
	Case style	Snap-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Integrated hard	Slide-on hard	Snap-on hard	Snap-on hard	Wallet
	Dot matrix display	160 × 240 dots	64 × 128 dots	64 × 128 dots	64 × 128 dots	64 × 128 dots	64 × 128 dots	31 × 96 dots	5 × 7 dots × 16 digits	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 7 dots × 12 digits
	Display capacity (characters)	20 × 17	21 × 8	21 × 8	21 × 8	21 × 8	21 × 8	16	16	12	12	12
	Mantissa + exponent digits	10 + 3	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2
	Icon menus	●	●	●	●	●	●	—	—	—	—	—
	Internal operation digits	15	15	15	15	15	15	15	15	12	12	12
	Nested parentheses levels	Up to memory	26	26	26	26	26	26	24	24	24	24
Programming Functions	Program logic	● (BASIC-like)	● (BASIC-like)	● (BASIC-like)	● (BASIC-like)	● (BASIC-like)	● (BASIC-like)	● (BASIC-like)	● (BASIC-like)	●	●	●
	Memory (bytes)	515,000	146,000	62,000	62,000	62,000	20,000	28,500	680	360	360	1,103
	Program areas	Up to memory	Up to memory	Up to memory	Up to memory	Up to memory	Up to memory	Up to memory	4	4	4	Up to memory
	Storage memory area (Flash memory)	5.3MB	768KB	1.5MB	1.5MB	—	—	—	—	—	—	—
	Built-in formulas	—	—	—	—	—	—	128	23	—	—	—
Utilities	Natural textbook display / NATURAL-V.P.A.M.	●	—	●	●	—	—	●	—	—	—	—
	Key rollover function	●	●	●	●	●	●	●	●	●	●	●
	Replay function	(History)	●	●	●	●	●	●	●	●	●	●
	Multi-replay functions	(History)	●	●	●	●	●	●	●	●	●	—
	Replay copy	—	—	—	—	—	—	—	—	—	—	—
	Backspace	●	—	●	●	●	●	●	●	●	●	●
	CALC function	—	—	—	—	—	—	●	—	—	—	●
	SOLVE function	●	●	●	●	●	●	●	—	—	—	—
	Answer function	●	●	●	●	●	●	●	●	●	●	●
	Variables	Up to memory	28	28	28	28	28	26 – 2398	7	7	7	26 – 163
	Onboard function manual	—	—	—	—	—	—	—	—	—	—	—
	Syntax help	—	—	—	—	—	—	—	—	—	—	—
	Auto power off	●	●	●	●	●	●	●	●	●	●	●
Special Features	Base-*n* calculations (Binary/Octal/Hexadecimal)	●	●	●	●	●	●	●	●	●	●	●
	Logical operations	●	●	●	●	●	●	●	●	●	●	●
	Engineering symbol calculations	—	●	●	●	●	●	●	—	—	—	●
	Engineering notation (ENG/ENG)	—	●	●	●	●	●	●	●	●	●	●
	Scientific constants	—	—	—	—	—	—	40	40	—	—	—
	Metric conversions	—	—	●	●	●	●	—	—	—	—	—
CAS	Computer Algebra System	●	●	—	—	—	—	—	—	—	—	—
Basic Functions	Trigonometric, inverse trigonometric (sin/cos/tan/sin^{-1}/cos^{-1}/tan^{-1})	●	●	●	●	●	●	●	●	●	●	●
	Hyperbolic, inverse hyperbolic (sinh/cosh/tanh/sinh^{-1}/cosh^{-1}/tanh^{-1})	●	●	●	●	●	●	●	●	●	●	●
	Exponential, logarithmic (log, ln, 10^{x}, e^{x})	●	●	●	●	●	●	●	●	●	●	●
	Base specified logarithmic	●	—	●	●	●	●	●	●	—	—	—
	Power and radical root (x^{y}/$\sqrt[x]{\ }$)	●	●	●	●	●	●	●	●	●	●	●
	Fraction	●	●	●	●	●	●	●	●	●	●	●
	Percentage calculation (%)	●	—	—	—	—	—	●	●	●	●	●
	Rounding	●	●	●	●	●	●	●	●	●	●	●
	Simplification	—	—	●	●	●	●	—	—	—	—	—
	Integer division	—	—	●	●	●	●	—	—	—	—	—
	GCD/LCM	●	●	●	●	●	●	—	—	—	—	—
	Sexagesimal ↔ decimal	●	●	●	●	●	●	●	●	●	●	●
	Display format (FIX, SCI)	●	●	●	●	●	●	●	●	●	●	●
	Angle unit (Deg, Rad, Grad)	●	●	●	●	●	●	●	●	●	●	●
	Angle unit conversion (Deg, Rad, Grad)	● / ● / —	●	●	●	●	●	●	●	●	●	—
	Factorization into prime factors	●	—	—	—	—	—	—	—	—	—	—
	Ratio calculation	—	—	—	—	—	—	—	—	—	—	—
Calculus	Differentiation calculation	●	●	●	●	●	●	●	—	●	●	—
	Integration calculation	●	●	●	●	●	●	●	—	●	●	●
Algebra	Simultaneous equation	●	● (30 unknowns)	● (6 unknowns)	● (6 unknowns)	● (6 unknowns)	● (6 unknowns)	● (5 unknowns)	—	—	—	—
	Polynomial equation	●	● (Degree 2–30)	● (Degree 2-6)	● (Degree 2-6)	● (Degree 2-6)	● (Degree 2-6)	● (Degree 2, 3)	—	—	—	—
	Inequality calculation	●	—	—	—	—	—	—	—	—	—	—
	Table function	●	●	●	●	●	●	●	—	—	—	—
	Matrix calculations	●	●	●	●	●	—	●	—	—	—	—
	Complex number calculation	●	●	●	●	●	●	●	●	●	●	—
Geometry	Geometry Application	●	—	● (Preloaded)	● (Preloaded)	—	—	—	—	—	—	—
	Coordinate conversion (Pol, Rec)	●	●	●	●	●	●	●	●	●	●	●
	Vector calculations	●	—	—	—	—	—	—	—	—	—	—
Probability	Combination, permutation (*n*Cr, *n*Pr)	●	●	●	●	●	●	●	●	●	●	●
Statistics	Random numbers	●	●	●	●	●	●	●	●	●	●	●
	Random integers	●	—	●	●	●	●	—	—	—	—	—
	List-based STAT data editor	●	●	●	●	●	●	●	●	●	●	—
	Standard deviation	●	●	●	●	●	●	●	●	●	●	●
	Regression analysis	●	●	●	●	●	●	●	●	●	●	●
	Linear regression	●	●	●	●	●	●	●	●	●	●	●
	ab Exponential regression	●	—	●	●	●	●	●	—	—	—	—
	Advanced statistics	●	●	●	●	●	—	—	—	—	—	—
	Other regressions	Med, Quad, Cubic, Quart, Log, Exp, Pwr, Sin, Lgst	Med, Quad, Cubic, Quart, Log, Exp, Pwr, Sin, Lgst	Med, Quad, Cubic, Quart, Log, Exp, Pwr, Sin, Lgst	Med, Quad, Cubic, Quart, Log, Exp, Pwr, Sin, Lgst	Med, Quad, Cubic, Quart, Log, Exp, Pwr, Sin, Lgst	Med, Quad, Cubic, Quart, Log, Exp, Pwr, Sin, Lgst	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	—
Finance	Financial function	●	●	●	●	●	—	—	—	—	—	—
Spreadsheet	Spreadsheet	●	—	●	●	—	—	—	—	—	—	—
Others	eActivity	●	—	●	●	—	—	—	—	—	—	—
	Data communication	●	●	●	●	●	●	●	—	—	—	—
	Others	Picture, Presentation, 3D graph, DiffEq Graph	Recursions	Recursions Backlight display	Recursions Backlight display	Recursions	—	Recursions	—	—	—	—

*1 Continuous operation (assuming 5 minutes calculation and 55 minutes display per hour) *2 Continuous display of main menu *3 1 hour use per day *4 Continuous display of flashing cursor *5 When left with power turned off *6 Changes when OS is updated

Scientific Calculators Specification Table

		Standard Models											
		fx-82ES PLUS	fx-85ES PLUS	fx-350ES PLUS	fx-95ES PLUS	fx-570ES PLUS	fx-991ES PLUS	fx-82ES	fx-85ES	fx-350ES	fx-500ES	fx-991ES	fx-570ES
Specifications	Number of functions	252	252	252	274	417	417	249	249	249	253	403	403
	Power supply (Main)	AAA × 1 (R03)	Two-way power (Solar + LR44 × 1)	AAA × 1 (LR03)	AAA × 1(R03)	AAA × 1 (R03)	Two-way power (Solar + LR44 × 1)	AAA × 1 (R03)	Two-way power (Solar + LR44 × 1)	AAA × 1 (LR03)	AAA × 1 (R03)	Two-way power (Solar + LR44 × 1)	AAA × 1 (R03)
	Power supply (Backup)	—	—	—	—	—	—	—	—	—	—	—	—
	Approximate battery life Main (hours)	17,000*4	3 years (LR44)*3	8,700*1	17,000*4	17,000*4	3 years (LR44)*3	17,000*4	3 years (LR44)*3	8,700*1	17,000*4	3 years (LR44)*3	17,000*4
	Approximate battery life Backup (years)	—	—	—	—	—	—	—	—	—	—	—	—
	Dimensions H×W×D(mm)	13.8 × 80 × 162	11.1 × 80 × 162	13.8 × 80 × 162	13.8 × 80 × 162	13.8 × 80 × 162	11.1 × 80 × 162	13.7 × 80 × 161	12.2 × 80 × 161	13.7 × 80 × 161	13.7 × 80 × 161	12.2 × 80 × 161	13.7 × 80 × 161
	Approximate weight (g)	100	95	100	100	100	95	110	105	110	110	105	110
	Case style	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard
	Dot matrix display	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots	31 × 96 dots
	Display capacity (characters)	15	15	15	15	15	15	15	15	15	15	15	15
	Mantissa + exponent digits	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2
	Icon menus	—	—	—	—	—	—	—	—	—	—	—	—
	Internal operation digits	15	15	15	15	15	15	15	15	15	15	15	15
	Nested parentheses levels	24	24	24	24	24	24	24	24	24	24	24	24
Programming Functions	Program logic	—	—	—	—	—	—	—	—	—	—	—	—
	Memory (bytes)	—	—	—	—	—	—	—	—	—	—	—	—
	Program areas	—	—	—	—	—	—	—	—	—	—	—	—
	Storage memory area (Flash memory)	—	—	—	—	—	—	—	—	—	—	—	—
	Built-in formulas	—	—	—	—	—	—	—	—	—	—	—	—
Utilities	Natural textbook display / NATURAL-V.P.A.M.	●	●	●	●	●	●	●	●	●	●	●	●
	Key rollover function	●	●	●	●	●	●	●	●	●	●	●	●
	Replay function	●	●	●	●	●	●	●	●	●	●	●	●
	Multi-replay functions	●	●	●	●	●	●	●	●	●	●	●	●
	Replay copy	—	—	—	—	—	—	—	—	—	—	—	—
	Backspace	●	●	●	●	●	●	●	●	●	●	●	●
	CALC function	—	—	—	—	●	●	—	—	—	—	●	●
	SOLVE function	—	—	—	—	●	●	—	—	—	—	●	●
	Answer function	●	●	●	●	●	●	●	●	●	●	●	●
	Variables	9	9	9	9	9	9	7	7	7	7	7	7
	Onboard function manual	—	—	—	—	—	—	—	—	—	—	—	—
	Syntax help	—	—	—	—	—	—	—	—	—	—	—	—
	Auto power off	●	●	●	●	●	●	●	●	●	●	●	●
Special Features	Base-*n* calculations (Binary/Octal/Hexadecimal)	—	—	—	—	●	●	—	—	—	—	●	●
	Logical operations	—	—	—	—	●	●	—	—	—	—	●	●
	Engineering symbol calculations	—	—	—	—	—	—	—	—	—	—	—	—
	Engineering notation (ENG/ĒNG)	●	●	●	●	●	●	●	●	●	●	●	●
	Scientific constants	—	—	—	—	40	40	—	—	—	—	40	40
	Metric conversions	—	—	—	—	40	40	—	—	—	—	40	40
CAS	Computer Algebra System	—	—	—	—	—	—	—	—	—	—	—	—
Basic Functions	Trigonometric, inverse trigonometric (sin/cos/tan/$\sin^{-1}$/$\cos^{-1}$/$\tan^{-1}$)	●	●	●	●	●	●	●	●	●	●	●	●
	Hyperbolic, inverse hyperbolic (sinh/cosh/tanh/$\sinh^{-1}$/$\cosh^{-1}$/$\tanh^{-1}$)	●	●	●	●	●	●	●	●	●	●	●	●
	Exponential, logarithmic (log, ln, 10^x, e^x)	●	●	●	●	●	●	●	●	●	●	●	●
	Base specified logarithmic	●	●	●	●	●	●	●	●	●	●	●	●
	Power and radical root (x^y/$\sqrt[x]{\ }$)	●	●	●	●	●	●	●	●	●	●	●	●
	Fraction	●	●	●	●	●	●	●	●	●	●	●	●
	Percentage calculation (%)	●	●	●	●	●	●	●	●	●	●	●	●
	Rounding	●	●	●	●	●	●	●	●	●	●	●	●
	Simplification	—	—	—	—	—	—	—	—	—	—	—	—
	Integer division	—	—	—	—	—	—	—	—	—	—	—	—
	GCD/LCM	—	—	—	—	—	—	—	—	—	—	—	—
	Sexagesimal ↔ decimal	●	●	●	●	●	●	●	●	●	●	●	●
	Display format (FIX, SCI)	●	●	●	●	●	●	●	●	●	●	●	●
	Angle unit (Deg, Rad, Grad)	●	●	●	●	●	●	●	●	●	●	●	●
	Angle unit conversion (Deg, Rad, Grad)	●	●	●	●	●	●	●	●	●	●	●	●
	Factorization into prime factors	●	●	●	●	—	—	—	—	—	—	—	—
	Ratio calculation	—	—	—	●	—	—	—	—	—	—	—	—
Calculus	Differentiation calculation	—	—	—	—	●	●	—	—	—	—	●	●
	Integration calculation	—	—	—	—	●	●	—	—	—	—	●	●
Algebra	Simultaneous equation	—	—	—	● (3 unknowns)	● (3 unknowns)	● (3 unknowns)	—	—	—	● (3 unknowns)	● (3 unknowns)	● (3 unknowns)
	Polynomial equation	—	—	—	● (Degree 2, 3)	● (Degree 2, 3)	● (Degree 2, 3)	—	—	—	● (Degree 2, 3)	● (Degree 2, 3)	● (Degree 2, 3)
	Inequality calculation	—	—	—	●	—	—	—	—	—	—	—	—
	Table function	●	●	●	●	●	●	●	●	●	●	●	●
	Matrix calculations	—	—	—	—	●	●	—	—	—	—	●	●
	Complex number calculation	—	—	—	—	●	●	—	—	—	—	●	●
Geometry	Geometry Application	—	—	—	—	—	—	—	—	—	—	—	—
	Coordinate conversion (Pol, Rec)	●	●	●	●	●	●	●	●	●	●	●	●
	Vector calculations	—	—	—	—	●	●	—	—	—	—	●	●
Probability	Combination, permutation (*nCr*, *nPr*)	●	●	●	●	●	●	●	●	●	●	●	●
Statistics	Random numbers	●	●	●	●	●	●	●	●	●	●	●	●
	Random integers	●	●	●	●	●	●	—	—	—	—	—	—
	List-based STAT data editor	●	●	●	●	●	●	●	●	●	●	●	●
	Standard deviation	●	●	●	●	●	●	●	●	●	●	●	●
	Regression analysis	●	●	●	●	●	●	●	●	●	●	●	●
	Linear regression	●	●	●	●	●	●	●	●	●	●	●	●
	ab Exponential regression	●	●	●	●	●	●	●	●	●	●	●	●
	Advanced statistics	—	—	—	—	—	—	—	—	—	—	—	—
	Other regressions	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad
Finance	Financial function	—	—	—	—	—	—	—	—	—	—	—	—
Spreadsheet	Spreadsheet	—	—	—	—	—	—	—	—	—	—	—	—
Others	eActivity	—	—	—	—	—	—	—	—	—	—	—	—
	Data communication	—	—	—	—	—	—	—	—	—	—	—	—
	Others	—	—	—	—	—	—	—	—	—	—	—	—

*1 Continuous operation (assuming 5 minutes calculation and 55 minutes display per hour) *2 Continuous display of main menu *3 1 hour use per day *4 Continuous display of flashing cursor *5 When left with power turned off *6 Changes when OS is updated

Scientific Calculators Specification Table

		Standard Models								
		fx-82MS	fx-85MS	fx-350MS	fx-95MS	fx-100MS	fx-115MS	fx-991MS	fx-570MS	fx-992S
Specifications	Number of functions	240	240	240	244	300	300	401	401	383
	Power supply (Main)	AA × 1	Two-way power (Solar + LR44 × 1)	LR44 × 1	AA × 1	AA × 1	Two-way power (Solar + LR44 × 1)	Two-way power (Solar + LR44 × 1)	LR44 × 1	Two-way power (Solar + LR44 × 1)
	Power supply (Backup)	—	—	—	—	—	—	—	—	—
	Approximate battery life Main (hours)	17,000*4/ 2 years*5	3 years (LR44)*3	9,000*4/ 3years*5	17,000*4/ 2 years*5	17,000*4/ 2 years*5	3 years (LR44)*3	3 years (LR44)*3	9,000*4/ 3 years*5	3 years (LR44)*3
	Approximate battery life Backup (years)	—	—	—	—	—	—	—	—	—
	Dimensions H×W×D(mm)	18.6 × 85 × 156	12.2 × 85 × 155	12.2 × 85 × 155	19.5 × 78 × 155	20 × 78 × 155	12.7 × 78 × 154.5	12.7 × 78 × 154.5	12.7 × 78 × 154.5	8.8 × 73 × 144
	Approximate weight (g)	125	100	100	130	133	105	105	105	74.3
	Case style	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard	Slide-on hard
	Dot matrix display	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 6 dots × 12 digits	5 × 5 dots × 4 digits
	Display capacity (characters)	12	12	12	12	12	12	12	12	—
	Mantissa + exponent digits	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	10 + 2	12 + 2
	Icon menus	—	—	—	—	—	—	—	—	—
	Internal operation digits	15	15	15	12	12	12	12	12	14
	Nested parentheses levels	24	24	24	24	24	24	24	24	18
Programming Functions	Program logic	—	—	—	—	—	—	—	—	—
	Memory (bytes)	—	—	—	—	—	—	—	—	—
	Program areas	—	—	—	—	—	—	—	—	—
	Storage memory area (Flash memory)	—	—	—	—	—	—	—	—	—
	Built-in formulas	—	—	—	—	—	—	—	—	—
Utilities	Natural textbook display / NATURAL-V.P.A.M.	—	—	—	—	—	—	—	—	—
	Key rollover function	●	●	●	●	●	●	●	●	●
	Replay function	●	●	●	●	●	●	●	●	—
	Multi-replay functions	●	●	●	●	●	●	●	●	—
	Replay copy	—	—	—	—	●	●	●	●	—
	Backspace	●	●	●	●	●	●	●	●	●
	CALC function	—	—	—	—	●	●	●	●	—
	SOLVE function	—	—	—	—	●	●	●	●	—
	Answer function	●	●	●	●	●	●	●	●	●
	Variables	9	9	9	9	9	9	9	9	7
	Onboard function manual	—	—	—	—	—	—	—	—	—
	Syntax help	—	—	—	—	—	—	—	—	—
	Auto power off	●	●	●	●	●	●	●	●	●
Special Features	Base-*n* calculations (Binary/Octal/Hexadecimal)	—	—	—	—	●	●	●	●	●
	Logical operations	—	—	—	—	●	●	●	●	●
	Engineering symbol calculations	—	—	—	—	●	●	●	●	●
	Engineering notation (ENG/ĒNG)	●	●	●	●	●	●	●	●	●
	Scientific constants	—	—	—	—	—	—	40	40	128
	Metric conversions	—	—	—	—	—	—	40	40	—
CAS	Computer Algebra System	—	—	—	—	—	—	—	—	—
Basic Functions	Trigonometric, inverse trigonometric (sin/cos/tan/$\sin^{-1}$/$\cos^{-1}$/$\tan^{-1}$)	●	●	●	●	●	●	●	●	●
	Hyperbolic, inverse hyperbolic (sinh/cosh/tanh/$\sinh^{-1}$/$\cosh^{-1}$/$\tanh^{-1}$)	●	●	●	●	●	●	●	●	●
	Exponential, logarithmic (log, ln, 10^x, e^x)	●	●	●	●	●	●	●	●	●
	Base specified logarithmic	—	—	—	—	—	—	—	—	—
	Power and radical root (x^y/$\sqrt[x]{\ }$)	●	●	●	●	●	●	●	●	●
	Fraction	●	●	●	●	●	●	●	●	●
	Percentage calculation (%)	●	●	●	●	●	●	●	●	●
	Rounding	●	●	●	●	●	●	●	●	●
	Simplification	—	—	—	—	—	—	—	—	—
	Integer division	—	—	—	—	—	—	—	—	—
	GCD/LCM	—	—	—	—	—	—	—	—	—
	Sexagesimal ↔ decimal	●	●	●	●	●	●	●	●	●
	Display format (FIX, SCI)	●	●	●	●	●	●	●	●	●
	Angle unit (Deg, Rad, Grad)	●	●	●	●	●	●	●	●	●
	Angle unit conversion (Deg, Rad, Grad)	●	●	●	●	●	●	●	●	—
	Factorization into prime factors	—	—	—	—	—	—	—	—	—
	Ratio calculation	—	—	—	—	—	—	—	—	—
Calculus	Differentiation calculation	—	—	—	—	●	●	●	●	—
	Integration calculation	—	—	—	—	●	●	●	●	—
Algebra	Simultaneous equation	—	—	—	● (3 unknowns)	● (3 unknowns)	● (3 unknowns)	● (3 unknowns)	● (3 unknowns)	—
	Polynomial equation	—	—	—	● (Degree 2, 3)	● (Degree 2, 3)	● (Degree 2, 3)	● (Degree 2, 3)	● (Degree 2, 3)	—
	Inequality calculation	—	—	—	—	—	—	—	—	—
	Table function	—	—	—	—	—	—	—	—	—
	Matrix calculations	—	—	—	—	—	—	●	●	—
	Complex number calculation	—	—	—	—	●	●	●	●	●
Geometry	Geometry Application	—	—	—	—	—	—	—	—	—
	Coordinate conversion (Pol, Rec)	●	●	●	●	●	●	●	●	●
	Vector calculations	—	—	—	—	—	—	●	●	—
Probability	Combination, permutation (*nCr*, *nPr*)	●	●	●	●	●	●	●	●	●
Statistics	Random numbers	●	●	●	●	●	●	●	●	●
	Random integers	—	—	—	—	—	—	—	—	—
	List-based STAT data editor	●	●	●	●	●	●	●	●	—
	Standard deviation	●	●	●	●	●	●	●	●	●
	Regression analysis	●	●	●	●	●	●	●	●	●
	Linear regression	●	●	●	●	●	●	●	●	●
	ab Exponential regression	—	—	—	—	—	—	—	—	—
	Advanced statistics	—	—	—	—	—	—	—	—	—
	Other regressions	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	Log, Exp, Pwr, Inv, Quad	—
Finance	Financial function	—	—	—	—	—	—	—	—	—
Spreadsheet	Spreadsheet	—	—	—	—	—	—	—	—	—
Others	eActivity	S-V.P.A.M.	S-V.P.A.M.	S-V.P.A.M.	S-V.P.A.M.	S-V.P.A.M., Normal distribution	S-V.P.A.M., Normal distribution	S-V.P.A.M., Normal distribution	S-V.P.A.M., Normal distribution	V.P.A.M.
	Data communication									
	Others									