

Graphical Times.

Volume 19, Issue 69, 2019.



Welcome back to the new school year for term 1, 2019. We hope that you have had a great summer break and ready for the 2019 academic year in mathematics and statistics.

What's in here!

Included in this terms newsletter are calculator activities for the Classpad, graphic and scientific calculators:

- **Worksheet for the ClassPad and similar models: Area Animations**
- **Worksheet for the FX9750GII and similar models: Transferring files between the FX9750Gii and laptop or PC**
- **Worksheet for the FX82AU+II and similar models: Sequences**
- **Back to School pricing valid until 28th February 2019**
- **Term 1, 2019 pricing valid until 28th April 2019.**

Workshop opportunities

Workshop opportunities: If you would like to have a workshop for teachers and/or students then please make contact with *Graphic Technologies*. A large number of schools are taking up this opportunity either singularly or as a cluster of schools (with both the graphic and ClassPad calculators), to look at how these technologies calculator could impact on and be integrated into classroom practice. With NZQA acknowledging that Year 11, 12 & 13 students without the use of a graphical calculator are being disadvantaged in the external examinations. A large number of schools have taking the opportunity to upskill teachers and students in using these mathematical and statistical hand-held and emulator technologies.



Worksheets downloaded off the web

Visit Monaco Corporation and Graphic Technologies websites to view and download worksheets and activities or past newsletters. There are links to other mathematics education websites too! For teachers we currently offer a large number of 'classroom ready' resources available and are designed primarily for the CASIO® FX82AU, FX82AU+II, FX9750GII, FX9750G, FX9750G+, CFX9850GB, CFX9850GB+, CFX9850GC+, FX9750GA, FX9750GA+ and FX9750GII and the ClassPad300, 300+, 330A, 330A+ and the fx-CP400 series. More have been added to the website since the last newsletter. **Please visit:** www.casio.edu.monacocorp.co.nz and <http://graphic-technologies.co.nz>

Program to support the use of the FX82AU+II and FX9750GII

A reminder of the Casio Education NZ Top Schools Program which supports schools using the FX82AU+II and FX9750GII calculators. The goal for the programme is to have all senior students in New Zealand using a graphics

Mathematics and Statistics faculty circulation [Pass it on to . . .]

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	→		→		→		→		→

calculator, so that no one is disadvantaged in the mathematics and statistics external NCEA examinations. Professional development courses are offered in conjunction with Graphic Technologies in supporting this initiative. Register now for 2019, if you have not already done so. Further details of the program can be uploaded from:

www.casio.edu.monacocorp.co.nz or http://casio.edu.monacocorp.co.nz/graphic_school_program.php and http://casio.edu.monacocorp.co.nz/top_school_program.php

Classpad updates

The ClassPad [fx-CP400] features a much larger, backlit screen than the previous models, while keeping the same functionality. Major differences for this handheld are the 3D graphing and presentation applications have been replaced by E-Con EA200 for data logging. Connectivity is much easier, and the ClassPad II acts as a USB drive when plugged into a PC. The **eActivities** are a great way to store procedures and activities. These can be downloaded and sent from the handheld ClassPad to another handheld ClassPad model using the USB cabling (SB-67). Programs can be written and downloaded to extend the functionality of the ClassPad II. eActivities, files and programmes can also be transferred from calculator to calculator using the SB-62 cabling.

Visit: <http://www.classpad.com.au/index.html>

Graphic Technologies Special Promotions

Some pricing specials for BTS term 1, 2019 until 28/2/2019. See the separate price sheet for more information on models.

Product	Price per unit for BTS 2019 (excl GST). Valid until 28 th February 2019.
FX9750GII graphic calculator (monochrome) RRP \$159.95 Special	\$80.00
FX82AU+II scientific calculator RRP \$39.95 Special	\$18.50
FX991ES plus scientific calculator Special	\$50.00
FA9860B emulator software school licence [FX9750GII] Only 2 left Special	\$600.00
AAA Batteries Card of 4 (Minimum 12 cards (48) an order) Special	\$5.00
AA Batteries Card of 4 (Minimum 12 cards (48) an order) Special	\$5.00
Back up battery CR2032 [for graphic calculator] Special	\$2.00

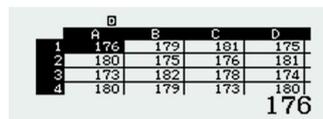
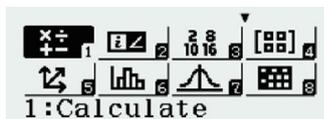
Useful websites

CS Unplugged is a collection of free teaching material that teaches Computer Science through engaging games and puzzles that use cards, string, crayons and lots of running around. <https://csunplugged.org/en/> and <https://csunplugged.org/en/topics/>

ClassWiz series

The new series of CASIO products with high resolution LCD technology. Visual, interactive with textbook-based displays makes its operation easier. This range of CASIO products are now available from Graphic Technologies.

FX991EX: <https://edu.casio.com/products/cwiz/fx991ex/index.php>



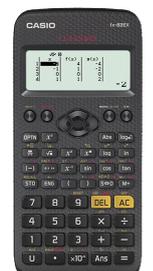
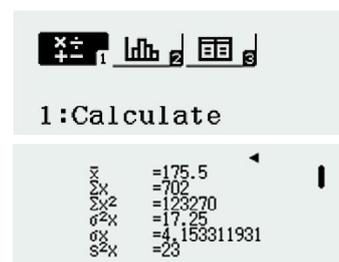
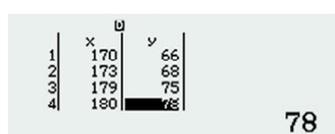
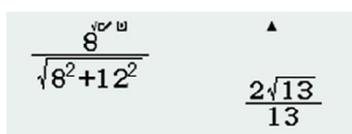
CLASSWIZ



For example: Spreadsheet - Useful for learning statistics. Up to 5 columns × 45 rows (maximum of 170 data items).

Activities: <https://edu.casio.com/forteachers/er/activities/index.php>

FX82EX: <https://edu.casio.com/products/cwiz/fx82ex/index.php>



Fractions and rational numbers

$$f(x) = 3x^2 + 1$$

Statistics

x	f(x)
1	4
2	13
3	4
4	1

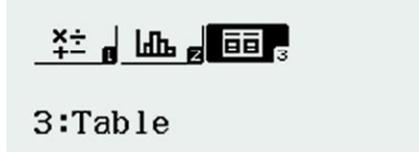
-2

Table function

Activities: <https://edu.casio.com/forteachers/er/activities/index.php>

FX350EX:

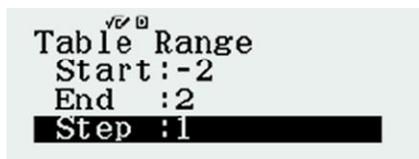
<https://edu.casio.com/products/cwiz/fx350ex/>



Icon menu

$$f(x) = 3x^2 + 1$$

Input Equation

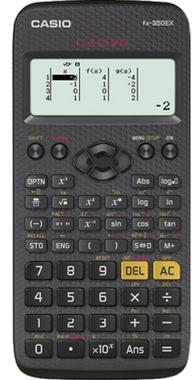


$x = -2 \sim 2$

x	f(x)
1	4
2	13
3	4
4	1

-2

Table of values



Activities: <https://edu.casio.com/forteachers/er/activities/index.php>

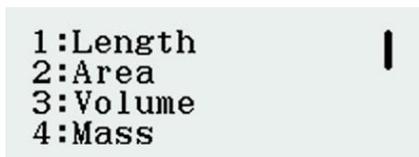
FX570EX:

<https://edu.casio.com/products/cwiz/fx570ex/>

$$\frac{3\sqrt{3} + \sqrt{2}}{2 + \frac{\sqrt{2}}{3}} = \frac{9\sqrt{3} + 2\sqrt{2}}{6}$$



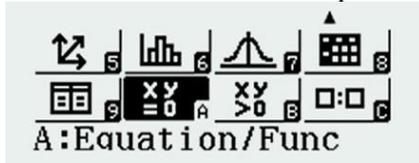
Polynomial Degree?
Select 2~4



1:in>cm 2:cm>in
3:ft>m 4:m>ft
5:yd>m 6:m>yd
7:mile>km 8:km>mile
9:n mile>m A:m>n mile
B:pc>km C:km>pc



Solve the simultaneous equations: $x + 2y = 3$ and $2x + 3y = 4$



Simul Equation
Number of Unknowns?
Select 2~4

Icon display

Select equation

$$\begin{cases} 1x + 2y = 3 \\ 2x + 3y = 4 \end{cases}$$

4

$$x = -1$$

$$y = 2$$

Input coefficient

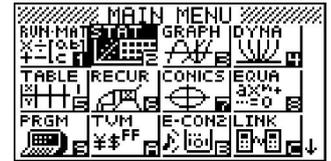
Solution

The solution is: $x = -1$ and $y = 2$

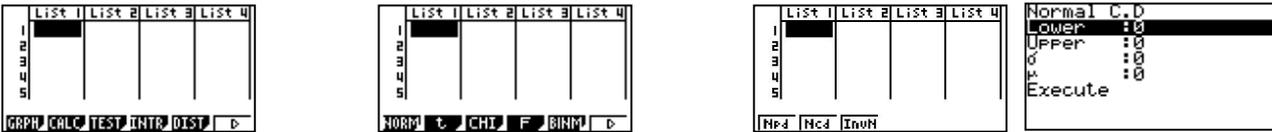
Activities: <https://edu.casio.com/forteachers/er/activities/index.php>

Activities

Select **STAT** mode from the **MAIN MENU** by using the arrow keys to highlight the **STAT** icon or pressing 2.

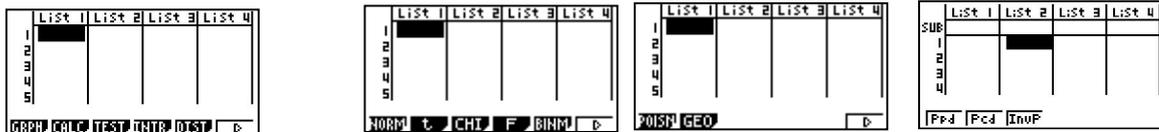


1. Normal distribution calculations in STAT Mode.



Entry from the **MAIN MENU** [F1] for **NORMAL** Distribution [F2] for **NCd** (Normal Cumulative) [F5] for **DISTR**ibutions

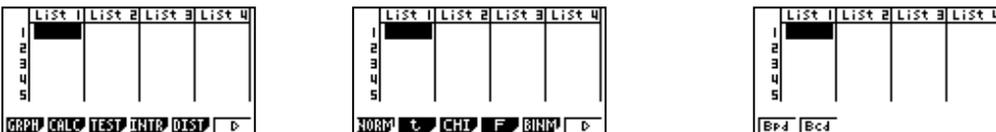
2. Poisson distribution calculations in STAT Mode.



Entry from the **MAIN MENU** [F6] then [F1] for **POISSON** Distribution [F1] for **PPd** (Poisson Probability) [F5] for **DISTR**ibutions [F2] for **PCd** (Poisson Cumulative)



3. Binomial distribution calculations in STAT Mode.



Entry from **MAIN MENU** [F5] for **BINomial** Distribution [F1] for **BPd** (Binomial Probability) [F5] for **DISTR**ibutions [F2] for **BCd** (Binomial Cumulative)

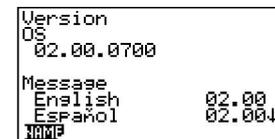
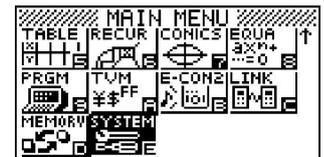
Note: In all cases above, make sure that 'Data' has being set to **VARIABLE** by pressing [F2].

Upgrading the OS for the hand-held FX9750Gii

Check the OS version of your calculator by opening **SYSTEM** from the **MAIN MENU**, then [F4] for **VERSION** (Software the following screen will display the version of OS currently running.

For textbook-based displays makes its operation easier:

<https://m.youtube.com/watch?v=S2gVq4J2vdA>



A last word!

Well again, that's all I can fit onto the 4 pages! Enjoy term 1! Hope to see you at some workshops or hear from you! If you would like to contribute or have suggestions as to what you would like to have discussed via this medium, please do not hesitate to contact us either by snail-mail, email, website, telephone, text or fax.

Derek Smith
Graphic Technologies
73 Viewmont Drive
Lower Hutt 5010

Phone: 04 569 1686
Fax: 04 569 1687
Mobile: 027 460 2871
Website: <http://graphic-technologies.co.nz>
Email: graph.tech@xtra.co.nz

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