

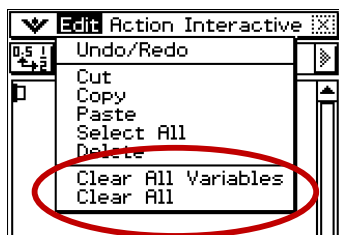
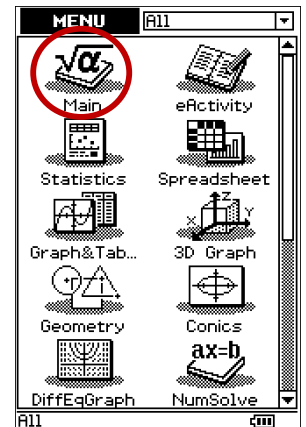
Solving linear equalities and inequalities.

This resource was written by Derek Smith with the support of CASIO New Zealand. It may be freely distributed but remains the intellectual property of the author and CASIO.

Solving linear equations requires the undoing of operations that are being applied to the variable. The task is always to isolate the unknown variable i.e. get the unknown variable ALONE on either the left or right side of the equals (or inequality) sign.

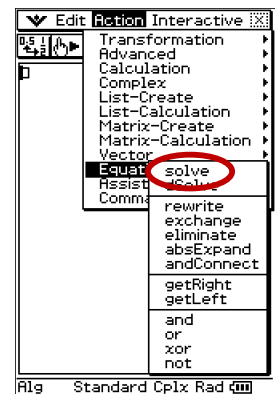
Remember that when solving equations to 'keep the equation balanced' by making the same changes to BOTH sides of the equals (or inequality) sign.

Enter the **Main** icon and then 'Clear all' and 'Clear all variables' using the drop-down menu via 'Edit'.



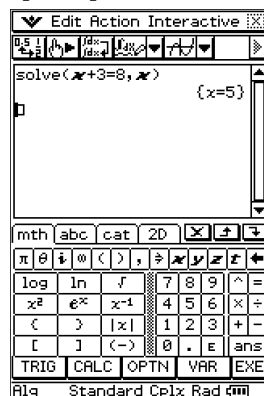
To solve equations on the ClassPad, use the drop-down 'Action' then 'Equation/Inequality', then 'solve'.

Type in the equation and then press [EXE].

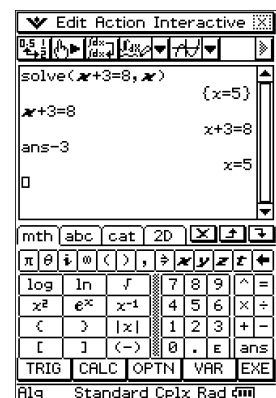


Equalities: the use of '=' only.

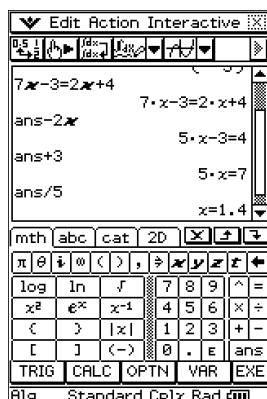
Example 1: Solve $x + 3 = 8$



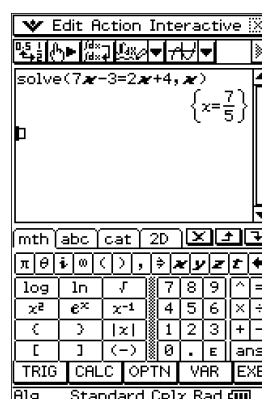
Step by step...



Example 2: Solve the equation $7x - 3 = 2x + 4$



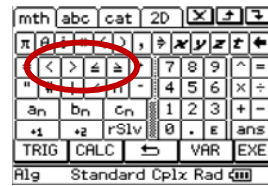
Step by step...



Inequalities: the use of ‘ \geq , \leq , $<$ or $>$ ’. These symbols can be accessed via the ‘**math**’ soft keyboard,

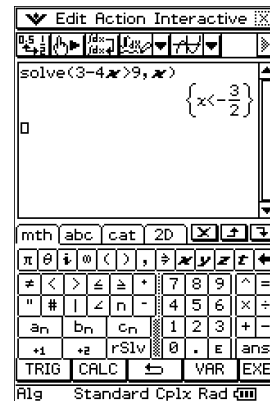
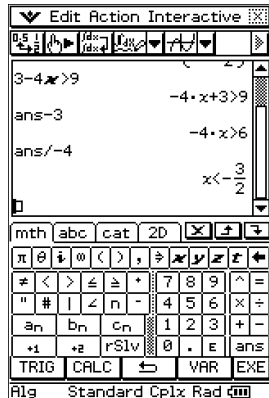


then press **OPTN**



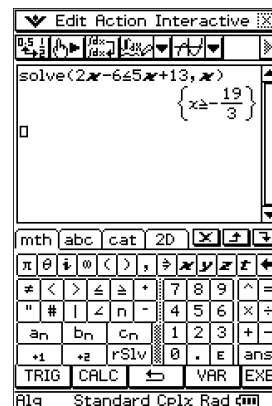
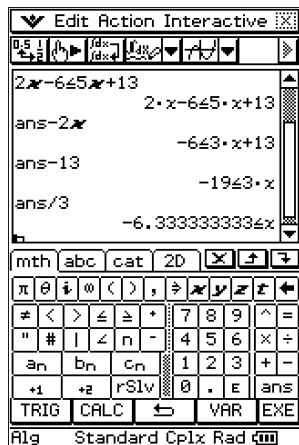
Example 1: Solve the linear inequality $3 - 4x > 9$

Step by step...

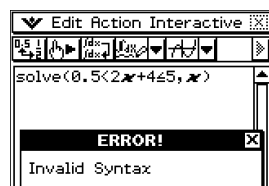


Example 2: Solve the linear inequality $2x - 6 \leq 5x + 13$

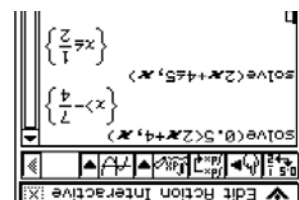
Step by step...



Extra for experts: Solve the linear inequality $0.5 < 2x + 4 \leq 5$



Solution:



For further tips, more helpful information and software support visit our websites:
www.casio.edu.monacocorp.co.nz or <http://graphic-technologies.co.nz>