Daniel Backström 2014-04-18
baxtrom@kth.se

DESOLVE 1.1 for TI-84 plus

DESOLVE is an ordinary differential equation solver using Runge-Kutta's fourth order method. You choose from a menu whether to specify directly a differential equation on the form

dF/dX = function of F, X

or to choose the equation stored in the Y_1 function variable.
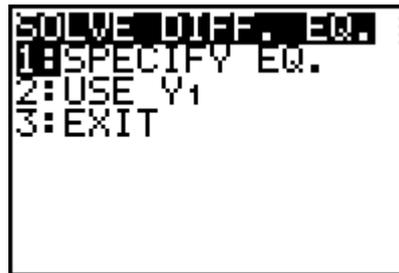
If you choose 1, you type in your differential equation, specify the range and initial condition,
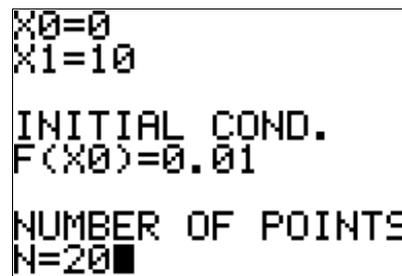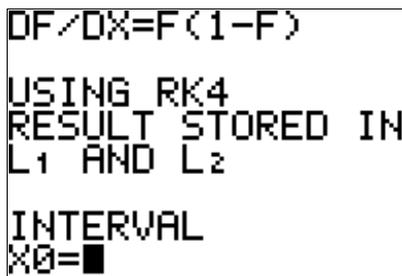
and also the number of data values to be evaluated. A greater value of N implies a smaller stepsize, improving the accuracy of the solver.

Finally, X-values are stored in the L_1 list and the computed F-values are stored in L_2, and the solution is plotted.
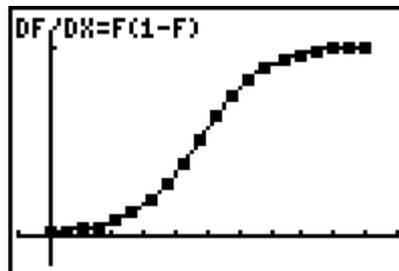
DESOLVE can also be used to integrate functions of X. Specifying for example dF/dX = 1/x in the range X = 1 to 10, with F(X0) = 0, will produce a close approximation of the naural logarithm Y = LN(X).