**Useful Math functions on TI-83/84**

**Numerical Derivative**

[MATH]→[8]→“Type in (function, variable, evaluation point)”→[ENTER]

**Numerical Integral**

[MATH]→[8]→“Type in (function, variable, lower bound, upper bound)”

**Equation Solver**

[MATH]→[0]→“Type in equation so that it is set equal to zero”→[ENTER]→Type in arbitrary guess→[ALPHA]→[ENTER]

**Solve System of Linear Equations**

Arrange the system of equations as shown:

- \(Ax_1 + Bx_2 +Cx_3 = \text{Constants}\)
- \(Dx_1 + Ex_2 +Fx_3 = \text{Constants}\)
- \(Gx_1 + Hx_2 +Ix_3 = \text{Constants}\)

[2ND]→[x⁻¹]→“Choose EDIT”→“Choose any matrix”→[ENTER]→“Type in matrix dimensions NOTE: Must agree with system of equations”

[2ND]→[QUIT]→[2ND]→[x⁻¹]→“Choose MATH”→“Scroll down to B: rref(”→[ENTER]→[2ND]→[x⁻¹]→“Choose NAME and select the matrix you created”→[ENTER]→[ENTER] ~~~~~~~~~~~~The solutions for each variable are listed in the right most column.

Source: Sam Sanford, LC Student Coordinator, winter 2015