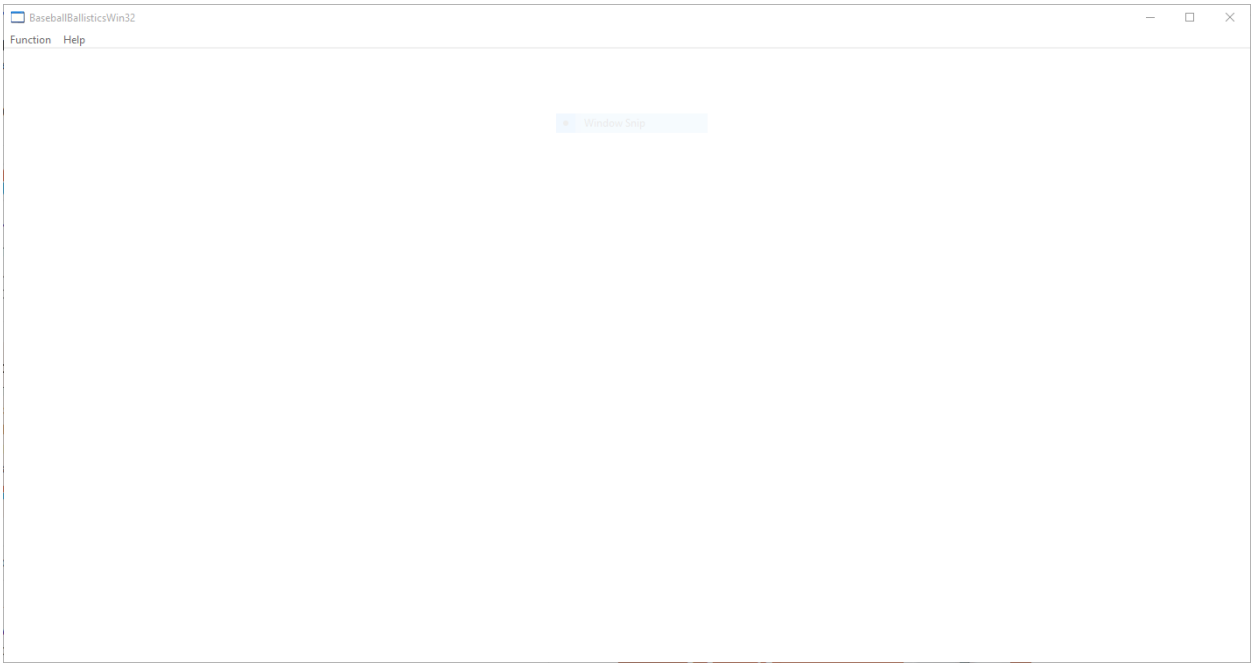
Blog Entry © Saturday, May 25, 2025, Return to Baseball Ballistics by James Pate Williams, Jr. BA, BS, Master of Software Engineering, PhD Computer Science Return to Baseball Ballistics

I translated my baseball ballistics C/C++ Win32 console application to a Win32 C/C++ Desktop Graphical User Interface application. The main window has three Function menu items which are:

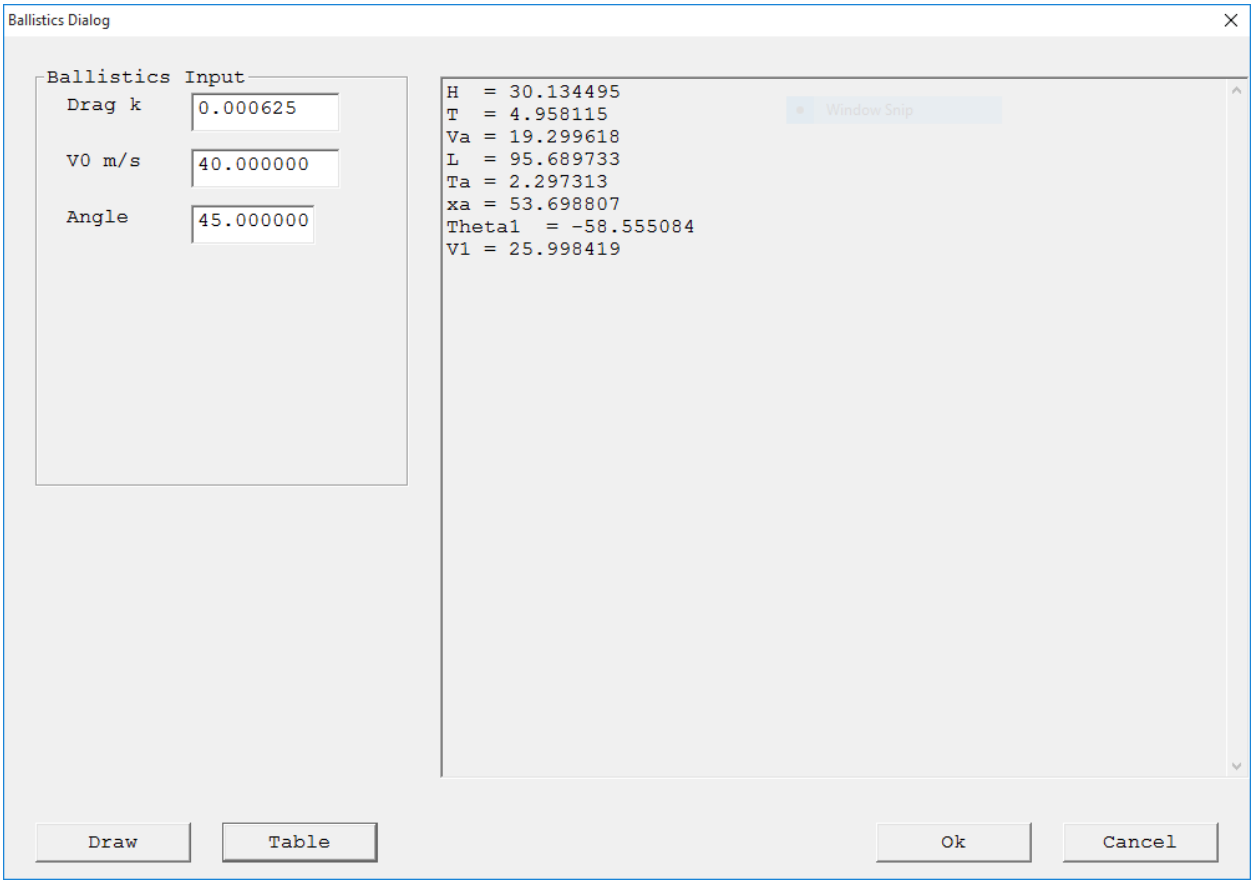
1. Analytic
2. Classic
3. Numeric

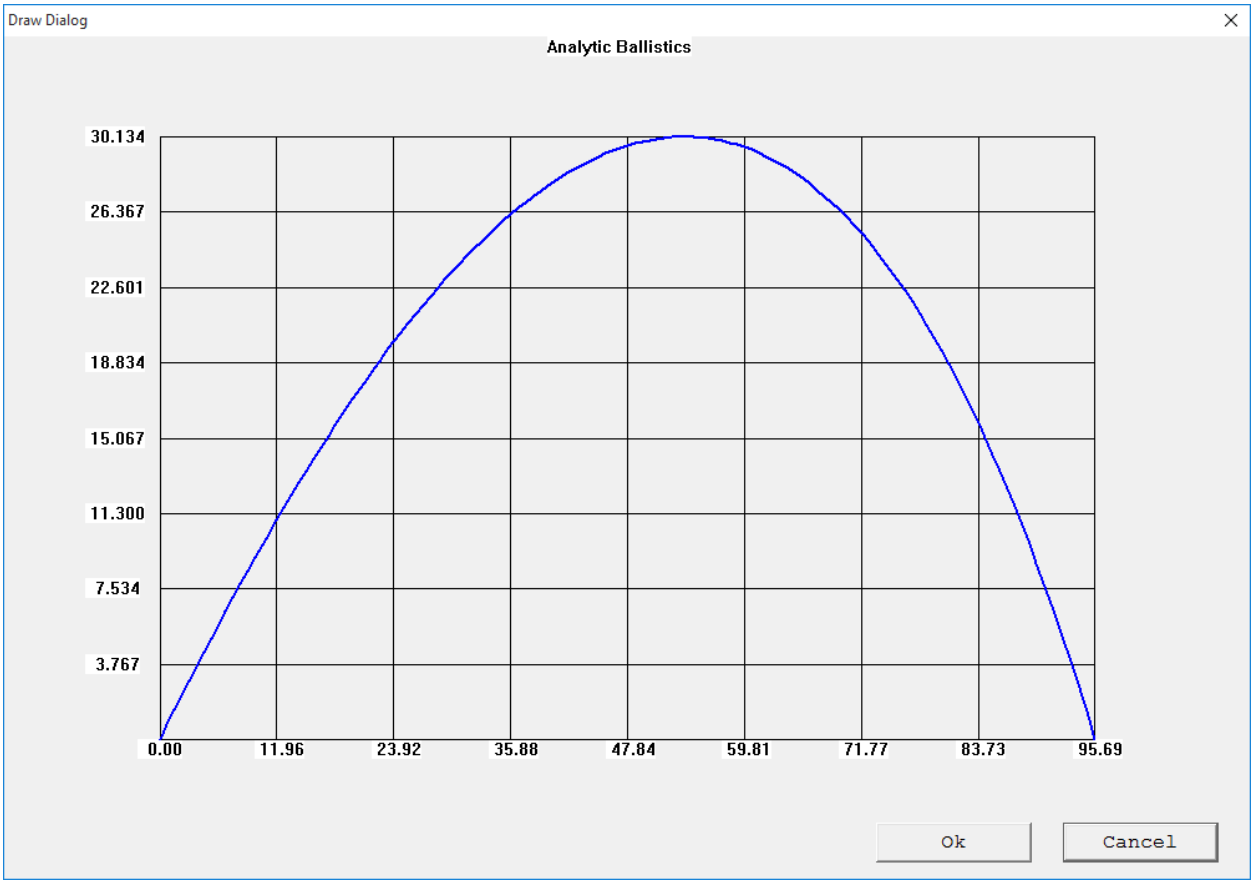
The best online reference that I have been able to find is:

04-LAJPE-782_Chudinov.pdf

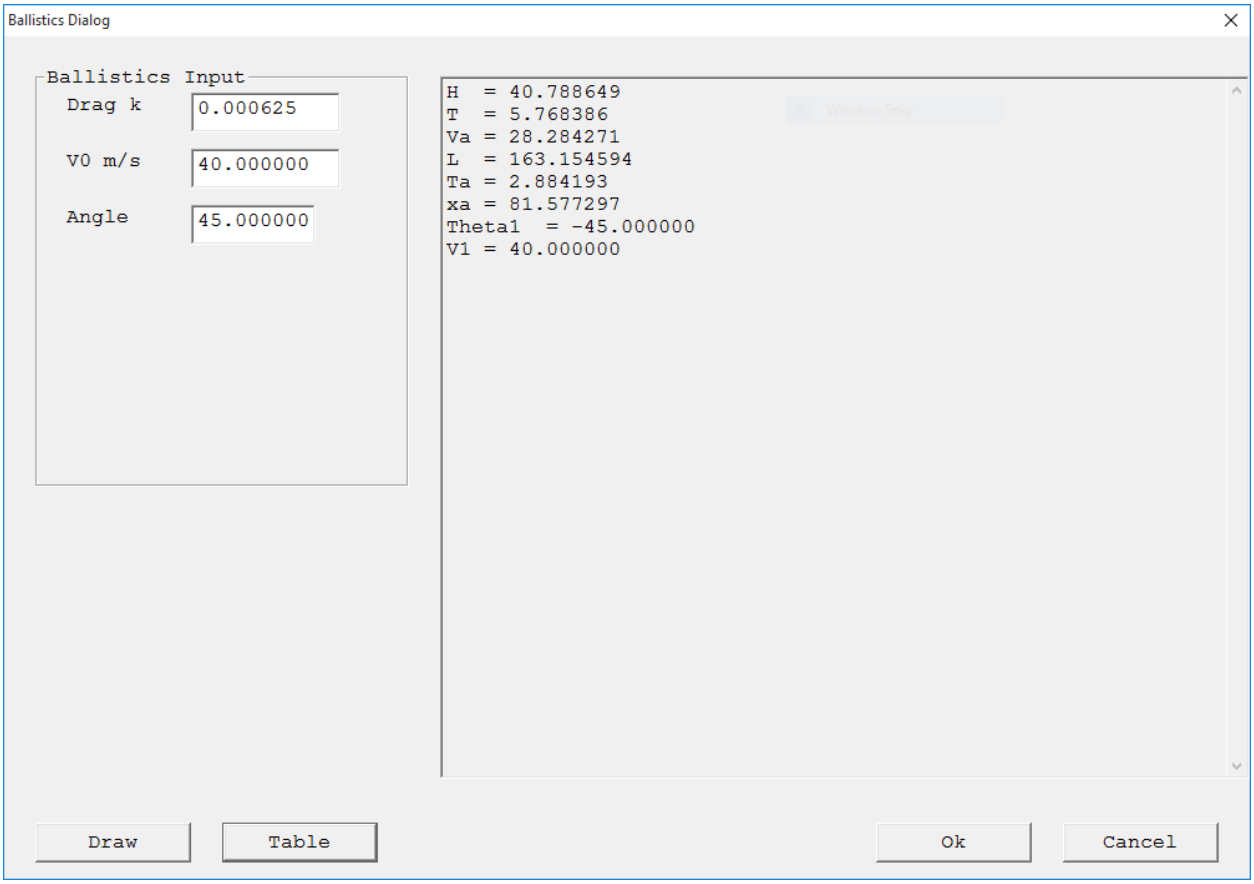


The “Analytic” dialog after pressing the “Table” button is:

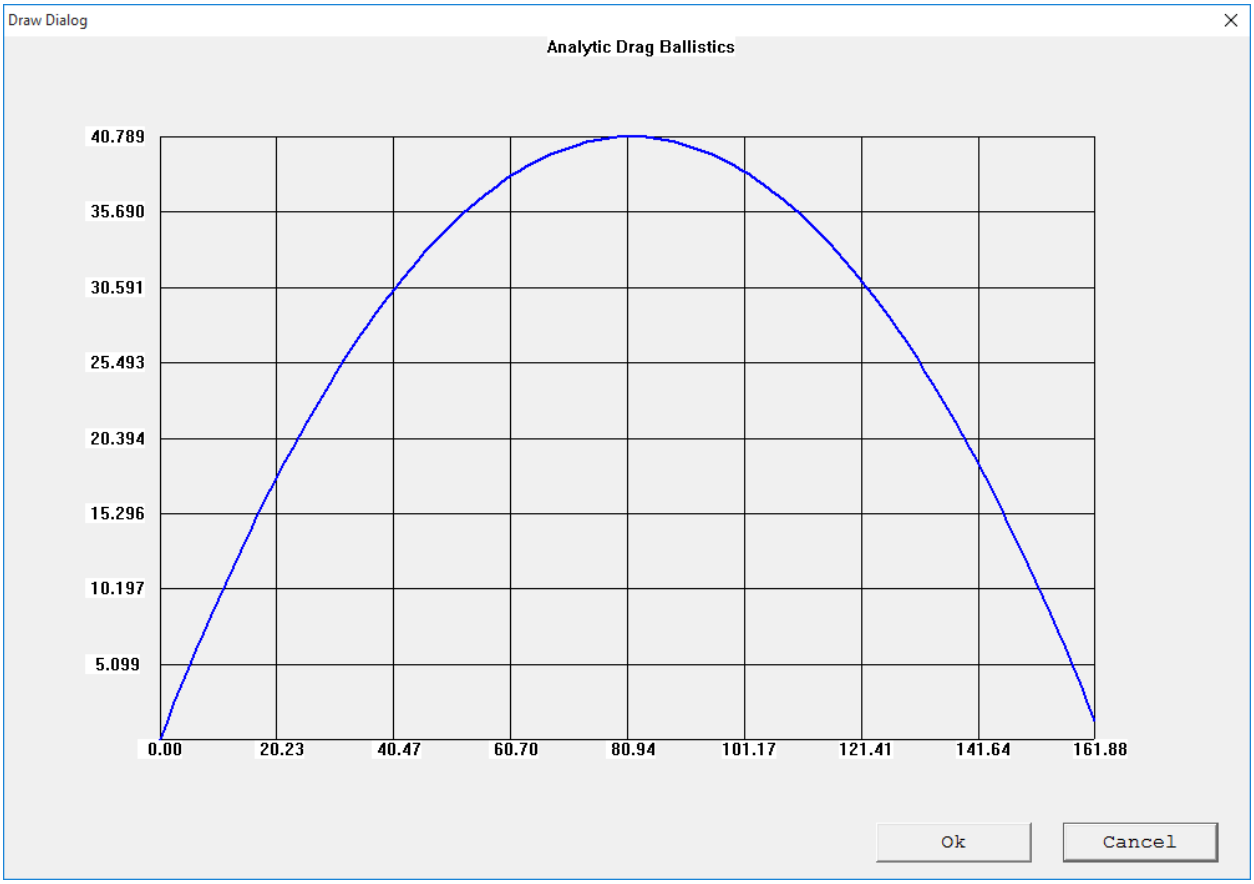

Ballistics Dialog
Ballistics Input
Drag k
0.000625
V0 m/s
40.000000
Angle
45.000000
H = 30.134495
T = 4.958115
Va = 19.299618
L = 95.689733
Ta = 2.297313
xa = 53.698807
Theta1 = -58.555084
V1 = 25.998419
Draw
Table
Ok
Cancel



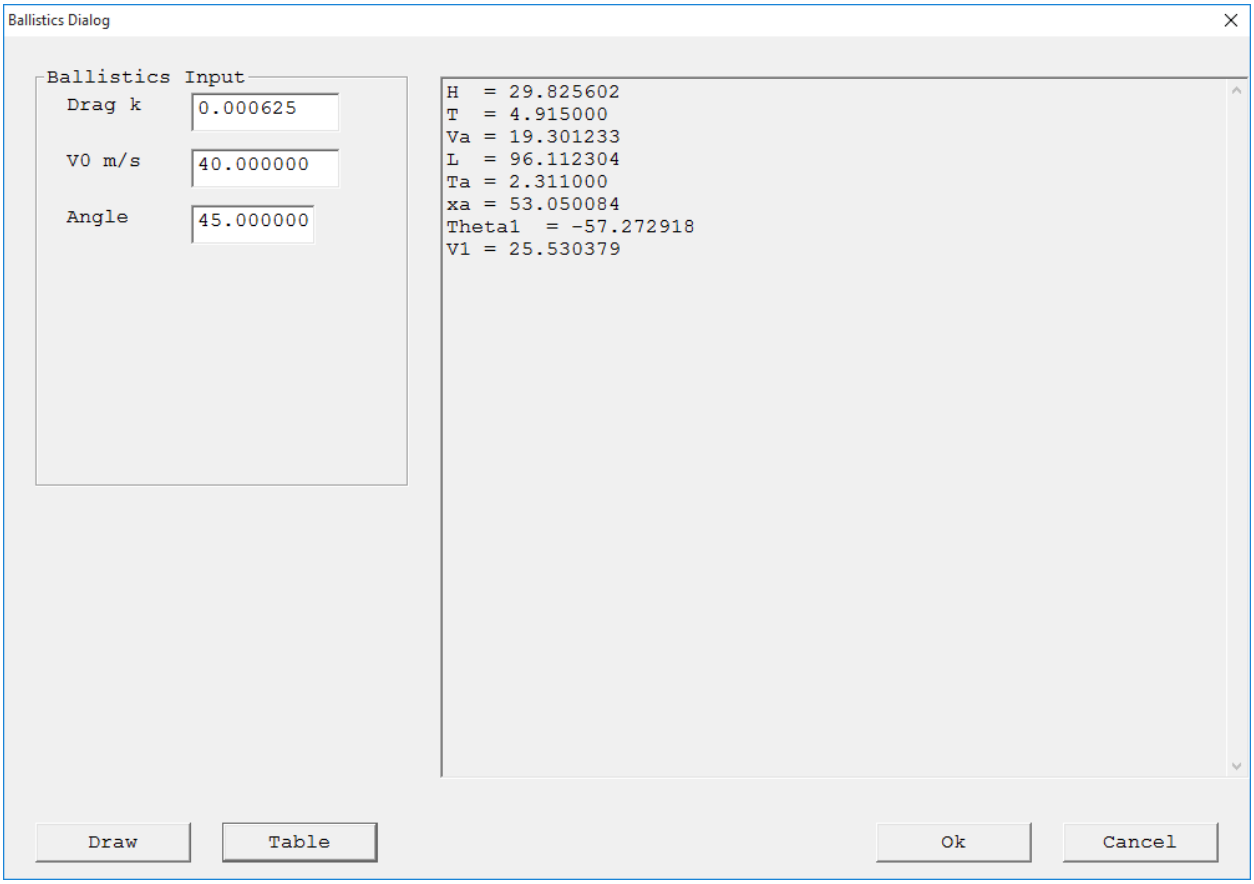
Next, we have the “Classic” function dialog:

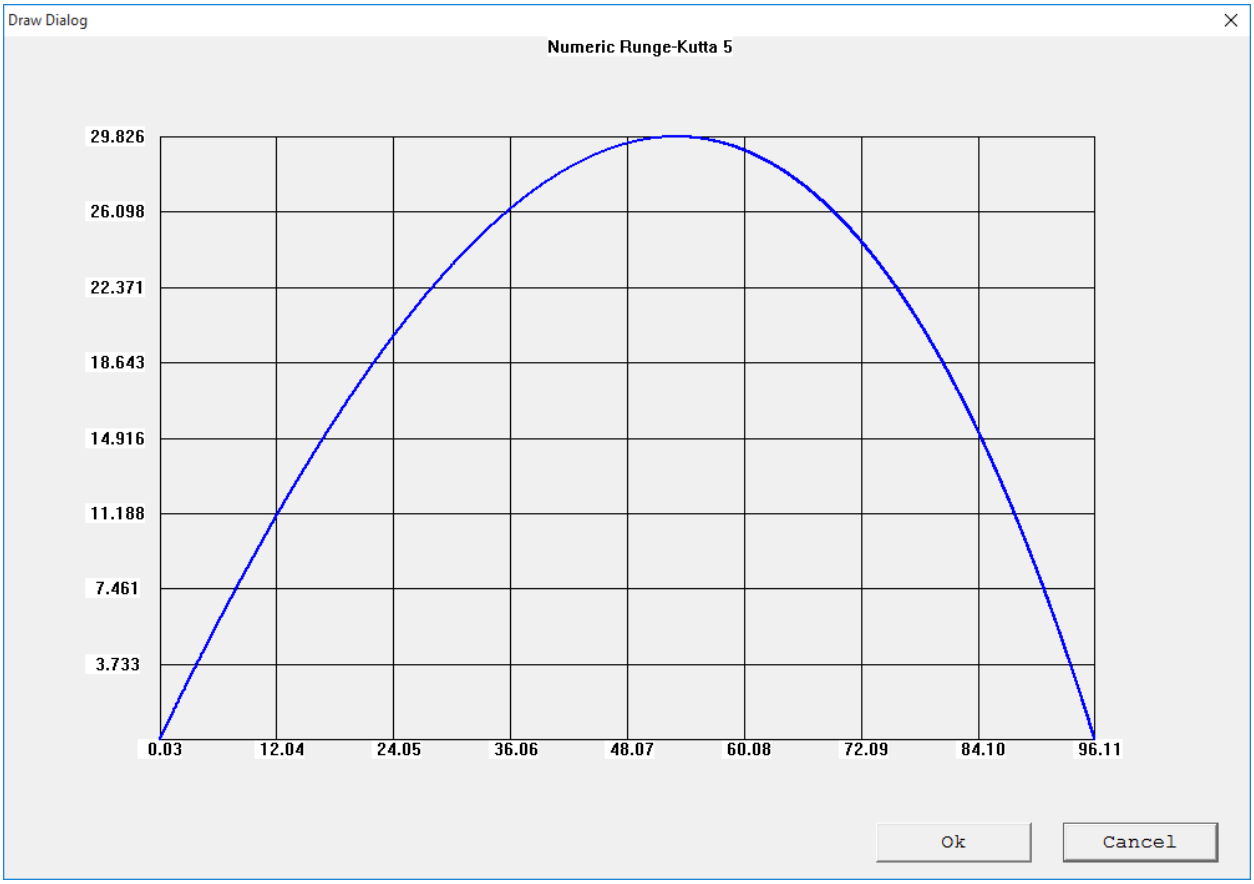


Unfortunately, I mislabeled the graph dialog in this case.



Last is the “Numeric” functionality which uses a Runge-Kutta fifth order method:


Ballistics Dialog
Ballistics Input
Drag k
0.000625
V0 m/s
40.000000
Angle
45.000000
H = 29.825602
T = 4.915000
Va = 19.301233
L = 96.112304
Ta = 2.311000
xa = 53.050084
Theta1 = -57.272918
V1 = 25.530379
Draw
Table
Ok
Cancel


Draw Dialog
Numeric Runge-Kutta 5
29.826
26.098
22.371
18.643
14.916
11.188
7.461
3.733
0.03
12.04
24.05
36.06
48.07
60.08
72.09
84.10
96.11
Ok
Cancel