

## ARCLen for the TI-83

```
Radian: Func: Float
ClrHome
Disp "MODE SET TO: "
Disp "RadianFuncFloat"
Disp "FUNCT IN Y•Y, Yf"
Disp "A->Xmin: B->Xmax"
For(I, 1, 500)
End
ClrHome
Input "A: ", A
Input "B: ", B
Disp "CALCULATING. . ."
fnInt(∂((nDeriv(Y•, X, X))∂+(nDeriv(Y, , X, X))∂+(nDeriv(Yf, X, X))∂), X, A, B)∂s
Output(3, 1, " ")
Output(3, 1, "S: ")
Output(3, 3, S)
Output(5, 1, "NORM(V) IN Y,")
Output(6, 1, "DO ZOOM")
Output(7, 1, "THEN ZoomFit")
"∂((nDeriv(Y•, X, X))∂+(nDeriv(Y, , X, X))∂+(nDeriv(Yf, X, X))∂)"∂Stro
StãEq(Str0, Y,")
FnOff 1, 2, 3
A∂Xmin: B∂Xmax
Output(8, 1, "AND BE PATIENT. . ")
Output(4, 1, " ")
```

Put x(t), y(t) and z(t) in y1, y2, and y3.

Then start the program and enter A and B when requested.

The program takes about a minute to calculate...longer to plot.

(But still shorter than by hand!)

## ArcLen for the TI-86

```
: Clr LCD
: Radian: Func: Float
: Clr LCD
: Disp "MODE SET TO: "
: Disp "RadianFuncFloatxRes5"
: Disp "Funct in y1 y2 y3"
: Disp "A->Xmin: B->Xmax"
: 5∂xRes
: For(I, 1, 300)
: End
: Clr LCD
: Input "A: ", A
: Input "B: ", B
: Disp "Please be patient. . ."
: fnInt(∂((nDeriv(y1, x, x))∂+(nDeriv(y2, x, x))∂+(nDeriv(y3, x, x))∂), x, A, B)∂s
: Outpt(3, 1, " ")
: Outpt(3, 1, "s: ")
: Outpt(3, 3, s)
: Outpt(5, 1, "Norm(v) in y4")
: Outpt(6, 1, "Do ZOOM")
: Outpt(7, 1, "Then ZFit")
: "∂((nDeriv(y1, x, x))∂+(nDeriv(y2, x, x))∂+(nDeriv(y3, x, x))∂)"∂St
: StãEq(St, y4)
: FnOff 1, 2, 3
: A∂Xmin: B∂Xmax
: Outpt(8, 1, "Very long to graph. . ")
: Outpt(4, 1, "RadianFuncFloatxRes5")
```