

ROOT

ROOTMENU

page

graf1

SUCC
succ2

succ1

Sheet1

Plot_search

Search method (the function should be in the form of $f(X) = 0$)

```
{ESC 5}{windowsoff}{err1}/reev1..ey8192~{let dummy6,0}{let flag3a,1}{let flag4,1}/reev2..ey8192~{goto}ev1~{let ev8,Input2}~  
{WINDOWSOFF}{let ex1,1}{let ey1,1}~{inp}{bbb}  
{menubran rootmenu}
```

Down

Move one cell down

[ESC] - Previous menu

```
{down}  
{menubran page}
```

```
{ESC 5}{err1}{windowsoff}{esc 3}/reex1..ey8192~{goto}ew1~/grgofgl{esc}{esc}tlx.{end}{down}~a{left}.{end}{down}~  
oTXVariable~TYFunction~TFFunction vs. Variable~ss  
25  
~  
{esc}v{esc 3}{left}{windowson}{return}
```

```
{ESC 5}{WINDOWSOFF}{ERR1}/REEV1..EX20~  
{ESC 5}{err1}{let ev3,"Function - "}{let ev8,Input2}~{goto}ev1~{hiding1}{WINDOWSON}{goto}ex3~{PANELON}{EDIT}{?}~{ESC  
{if ex3=""}{ESC 5}{branch succ4}  
{if dummy6=1}{goto}ex4~{let ev8,Input3}~{LET EV4,"Derivative - "}{HIDING2}{WINDOWSON}{PANELON}{let ew1,1}{EDIT}{  
{if dummy6=1#and#ex4=""}{windowsoff}{paneloff}{unhiding}{branch succ4}  
{if dummy6=1}{LET EV8,""}~{WINDOWSOFF}{PANELOFF}{unhiding2}{EDIT}{HOME}'~{let ev1,dummy7&ex3&dummy8&ex4  
{windowson}{let ev3,"Function - "}{let ev6,"Accuracy - "}{let ev8,"Initial value - "}{let ev10,"Max. iterations"}{let ev12,"Number o  
{ESC 5}{err1}{goto}ex6~{let eX12,0}{getnumber "Accuracy - ",dummy}~{if @string(dummy,0)<>""}{let ex6,dummy}  
{goto}ex8~{getnumber "Initial value - ",dummy}~{if @string(dummy,0)<>""}{let ex8,dummy}~  
{let var,ex8}{calc}{goto}ex10~{getnumber "Max. No. of iterations - ",dummy}~{if @string(dummy,0)<>""}{let ex10,dummy}~  
{if dummy6=0}{let ev14,"Relaxation factor (0<C<1) - "}{goto}ex14~{getnumber "Relaxation factor (0<C<1) - ",dummy}~{if @  
{if dummy6=1#and#ex6=""#and#ex8=""}{branch succ4}  
{if dummy6=1#and#(ex6=""#or#ex8="")}{branch succ1}  
{if dummy6=0#and#(ex6=""#and#ex8=""#and#ex14="")}{branch succ4}  
{if dummy6=0#and#(ex6=""#or#ex8=""#or#ex14="")}{branch succ1}  
{goto}warn1~{windowson}{windowsoff}  
{LET Ex12,Ex12+1}  
{if @abs(var/Ev1-1)>Ex6#and#ex12<=ex10#and#dummy6=0}{let var,(1-EX14)*ev1+EX14*var}~{calc}{branch act}  
{if @abs(var/Ev1-1)>Ex6#and#ex12<=ex10#and#dummy6=1}{let var,ev1}~{calc}{branch act}  
{let out,ev1}{goto}ev1~{windowson}{return}
```

Sheet1

dummy9
dummy6

Under_relaxation

Under relaxation approximation (the function should be in the form $f(X) = X$)

```
{ESC 5}{WINDOWSOFF}{err1}{let dummy6,0}{let flag4,2}{let flag3a,0}/reey1..ez8192~{SUCC}  
{menubrand rootmenu}
```

Up

Move one cell up

[ESC] - Previous menu

```
{up}
```

```
{menubrand page}
```

)

0

Newton's

Newton's method

```
{ESC 5}{WINDOWSOFF}{err1}{let dummy6,1}{let flag4,2}{let flag3a,0}/reey1..ez8192~{SUCC}  
{menubrand rootmenu}
```

Next

Next page

[ESC] - Previous menu

{pgdn}~

{menubrand page}

Sheet1

dummy7

View

View the graph and page through the results (only for Plot_search)

{ESC 5}{if flag4=1}{windowson}{menucall page}

{menubrand rootmenu}

Previous

Previous page

[ESC] - Previous menu

{pgup}~

{menubrand page}

Sheet1

+var-(

Repeat

Repeat the same function with different limits and steps

```
{ESC 5}{windowsoff}{err1}{if flag4=1}{let ex1,1}{let ey1,1}{inp}{bbb}
```

```
{if flag4=2}{windowson}{succ1}
```

```
{menubranh rootmenu}
```

Graph

View graph

```
{ESC 5}{ERR1}{graf1}
```

```
{menubranh page}
```

Sheet1

dummy8

Edit

Edit the function

```
{ESC 5}{IF DUMMY6=1}{windowsoff}/reev1..ew1~/REEV5..EX20~{goto}ex3~{edit}{home}{del}~{if dummy6=1#and#ex4<>"}{  
{IF DUMMY6=0}{windowsoff}/reev1..ew1~/REEV4..EX20~{goto}ex3~{edit}{home}{del}~  
{succ2}{menubrand rootmenu}
```

Save_graph

Save graph as a .PIC file

```
{ESC 5}{err1}{GETLABEL "Input file name - ",point5n}~{if point5n=""}{branch point6p}  
/GS{esc}  
ggg  
~rq{ESC 5}{menubrand page}
```

)/(

Help

On line help

{ESC 5}{err1}{mark}{windowsoff}{GOTO}HEP8~/REIV1..IV3000~/FIT{ESC 2}HELP8~{goto}hep8~{WINDOWSON}{menucall h
{goback}{windowson}{menubbranch rootmenu}

Help

On line help

{ESC 5}{err1}{mark}{windowsoff}{GOTO}HEP8~/REIV1..IV3000~/FIT{ESC 2}HELP8~{goto}hep8a~{WINDOWSON}{menucall h
{goback}{windowson}{menubbranch rootmenu}

