C:\rgpu\computer-algebra\

Name
- 📁 computer-algebra
  - ..
  - 📁 addition
  - indepworkinvar1-1.docx
  - indepworkinvar1-2.docx
  - indepworkinvar2-1.pptx
  - indepworkinvar2-2.mp4
  - indepworkvar1-1.docx
  - indepworkvar2-1.docx
  - indepworkvar2-2.docx
  - indepworkvar2-3.docx
  - lab1-1.docx
  - lab1-2.docx
  - lab1-3.docx
  - lab1-4.docx
  - lab2-1.docx
  - lab3-1.pdf
  - lab3-1.sod
  - lab3-2.pdf
  - lab3-2.sod
  - lab3-3.sod

File/directory filter

☐ Case sensitive ☐ Regular expression

```
Startup execution:
  loading initial environment

--> //----------Численное интегрирование и дифференцирование

--> //----------Раздел 7.1

--> a=1;b=2;x=a:b;y=(1+2*x^2-x^3)^(1/2);inttrap(x,y)
 ans  =

    1.2071068

--> h=0.5;a=1;b=2;x=a:h:b;y=(1+2*x^2-x^3)^(1/2);inttrap(x,y)
 ans  =

    1.3324224

--> h=0.1;a=1;b=2;x=a:h:b;y=(1+2*x^2-x^3)^(1/2);inttrap(x,y)
 ans  =

    1.3769196

--> a=1;b=2;x=a:b;y=(1+2*x^2-x^3)^(1/2);inttrap(y)
 ans  =

    1.2071068

--> //----------Раздел 7.2

--> integrate('(1+2*x^2-x^3)^(1/2)','x',1,2)
 ans  =

    1.3788743

--> integrate('(1+2*x^2-x^3)^(1/2)','x',1,3)
 ans  =

    1.5208035

--> integrate('(1+2*x^2-x^3)^(1/2)','x',2,5)
 ans  =

    0.1419292

--> integrate('(1+2*x^2-x^3)^(1/2)','x',3,9)
 ans  =

    4.561D-15
```

Name	Value	Type	Visibility	Memory
I	3.23e-15	Double	local	216 B
a	1	Double	local	216 B
ans	1x1	Boolean	local	212 B
b	2	Double	local	216 B
dy	[0.0669, 0.0...	Double	local	232 B
dy2	[-0.00895, -...	Double	local	224 B
dy3	0.00212	Double	local	216 B
er	4.71e-26	Double	local	216 B
h	5	Double	local	216 B
x	[3, 5]	Double	local	224 B
y	[1.48, 1.54, ...	Double	local	240 B

```
deff('y=G(x)',y=(1+2*x^2-x^3)^(1/2)'); intg(2,5,G)
function y=f(x),y=(1+2*x^2-x^3)^(1/2),endfunction; [I,er]=intg(1,4,f)
function y=f(x),y=(1+2*x^2-x^3)^(1/2),endfunction; [I,er]=intg(3,8,f)
//----------Раздел 7.4
h=5;x=30:5:45;y=log10(x)
dy=diff(y)
dy2=diff(y,2)
dy3=diff(y,3)
v
//----------Раздел 7.5
function f=myfun(x), f=x(1)*x(1)+x(1)*x(2),endfunction; x=[6 8]; g=numdiff(my
function f=myfun(x), f=x(1)*x(1)+x(2)*x(2),endfunction; x=[4 8]; g=numdiff(my
function f=myfun(x), f=x(1)*x(1)+x(2)*x(2),endfunction; x=[7 9]; g=numdiff(my
function f=myfun(x), f=x(2)*x(2)+x(1)*x(2),endfunction; x=[3 5]; g=numdiff(my
//Я не знаю, почему Scilab выдаёт такую ошибку, так как
//в учебнике и официальной документации к этой версии
//написано то же самое. Возможно, Scilab почему-то
//не воспринимает numdiff как функцию.
```

Web tools in Scilab 6.1

Web tools in Scilab 6.1

Leverage the new functions for server communication, based on the well known web protocol HTTPS:
GET to simply get data from remote location POST to exchange data with the server through the request

It enables seemless exchanges with remote servers, by connecting to their API (i.e....

https://www.scilab.org/web-tools-scilab-61

File Browser

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  - ..
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File/directory filter

☐ Case sensitive ☐ Regular expression

Scilab 6.1.0 Console

```
    0.1419292

--> integrate('(1+2*x^2-x^3)^(1/2)','x',3,9)
 ans  =

    4.561D-15

--> //----------Раздел 7.3

--> deff('y=G(x)','y=(1+2*x^2-x^3)^(1/2)'); intg(1,4,G)
 ans  =

    1.5208035

--> deff('y=G(x)','y=(1+2*x^2-x^3)^(1/2)'); intg(2,5,G)
 ans  =

    0.1419292

--> function y=f(x),y=(1+2*x^2-x^3)^(1/2),endfunction; [I,er]=intg(1,4,f)
 I  =

    1.5208035
 er  =

    6.798D-09

--> function y=f(x),y=(1+2*x^2-x^3)^(1/2),endfunction; [I,er]=intg(3,8,f)
 I  =

    3.235D-15
 er  =

    4.715D-26

--> //----------Раздел 7.4

--> h=5;x=30:5:45;y=log10(x)
 y  =

    1.4771213    1.544068    1.60206    1.6532125

--> dy=diff(y)
 dy  =

    0.0669468    0.0579919    0.0511525

--> dy2=diff(y,2)
 dy2  =
```

Variable Browser

Name	Value	Type	Visibility	Memory
I	3.23e-15	Double	local	216 B
a	1	Double	local	216 B
ans	1x1	Boolean	local	212 B
b	2	Double	local	216 B
dy	[0.0669, 0.0...	Double	local	232 B
dy2	[-0.00895, -...	Double	local	224 B
dy3	0.00212	Double	local	216 B
er	4.71e-26	Double	local	216 B
h	5	Double	local	216 B
x	[3, 5]	Double	local	224 B
y	[1.48, 1.54, ...	Double	local	240 B

Command History

```
deff('y=G(x)','y=(1+2*x^2-x^3)^(1/2)'); intg(2,5,G)
function y=f(x),y=(1+2*x^2-x^3)^(1/2),endfunction; [I,er]=intg(1,4,f)
function y=f(x),y=(1+2*x^2-x^3)^(1/2),endfunction; [I,er]=intg(3,8,f)
//----------Раздел 7.4
h=5;x=30:5:45;y=log10(x)
dy=diff(y)
dy2=diff(y,2)
dy3=diff(y,3)
y
//----------Раздел 7.5
function f=myfun(x), f=x(1)*x(1)+x(1)*x(2),endfunction; x=[6 8]; g=numdiff(m
function f=myfun(x), f=x(1)*x(1)+x(2)*x(2),endfunction; x=[4 8]; g=numdiff(m
function f=myfun(x), f=x(1)*x(1)+x(1)*x(2),endfunction; x=[7 9]; g=numdiff(m
function f=myfun(x), f=x(2)*x(2)+x(1)*x(2),endfunction; x=[3 5]; g=numdiff(m
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News feed

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lab3-2.pdf
lab3-2.sod
lab3-3.sod

File/directory filter

☐ Case sensitive ☐ Regular expression

Scilab 6.1.0 Console

```
--> dy=diff(y)
 dy  =

   0.0669468   0.0579919   0.0511525

--> dy2=diff(y,2)
 dy2  =

  -0.0089548  -0.0068394

--> dy3=diff(y,3)
 dy3  =

   0.0021154

--> v

Undefined variable: v

--> //----------Раздел 7.5

--> function f=myfun(x), f=x(1)*x(1)+x(1)*x(2),endfunction; x=[6 8]; g=numdiff(myfun,x)

Undefined variable: numdiff

--> function f=myfun(x), f=x(1)*x(1)+x(2)*x(2),endfunction; x=[4 8]; g=numdiff(myfun,x)
Warning : redefining function: myfun                  . Use funcprot(0) to avoid this message

Undefined variable: numdiff

--> function f=myfun(x), f=x(1)*x(1)+x(1)*x(2),endfunction; x=[7 9]; g=numdiff(myfun,x)
Warning : redefining function: myfun                  . Use funcprot(0) to avoid this message

Undefined variable: numdiff

--> function f=myfun(x), f=x(2)*x(2)+x(1)*x(2),endfunction; x=[3 5]; g=numdiff(myfun,x)
Warning : redefining function: myfun                  . Use funcprot(0) to avoid this message

Undefined variable: numdiff

--> //Я не знаю, почему Scilab выдаёт такую ошибку, так как

--> //в учебнике и официальной документации к этой версии

--> //написано то же самое. Возможно, Scilab почему-то

--> //не воспринимает numdiff как функцию.

  "Environment saved."
-->
```

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ans	1x1	Boolean	local	212 B
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