

mk_graph Manual

Edition : 2009.02.12

OpenXM.org

1 Function Manual

1.1 Outline

1.2 Notation

1.3 Functions

1.3.1 mtg.plot3d

`mtg.plot3d(formula)`
 :: Draw a graph of *formula*

`mtg.plot3d(formula | options)`
 :: Draw a graph of *formula*. Optional arguments are described below.

return List

formula Expression or quote data. It should be a function in **x**, **y**.

optinal arguments

domain List. [[xmin,xmax],[ymin,ymax]]

mesh Natural number. Division number to mesh the region.

fit When it is 1, (max+min)/2 is moved to the origin in z.

- Details have not been written. See examples.

```
[1210] import("mt_graph.rr");
[1211] mtg.test2();
[1210] import("mt_graph.rr");
[1211] mtg.plot3d(x^2-y^2);
[1210] import("mt_graph.rr");
[1211] mtg.plot3d(x^2-y^2 | domain=[[-1,1],[1,1]]);
[1210] import("mt_graph.rr");
[1211] def myfunc(X,Y) { if (X*Y < 0) return 0; else 1;}
[1212] mtg.plot3d(quote(myfunc(x,y)*x*y));
```

1.3.2 mtp.parametric_plot3d

`mtp.parametric_plot3d(formula)`
 :: Draw a graph of *formula*

`mtp.parametric_plot3d(formula | options)`
 :: Draw a graph of *formula*. Optinal arguments are described below.

return List

formula Expression or quote data. It should be a function in **s**, **t**.

optinal arguments

domain List. [[xmin,xmax],[ymin,ymax]]

mesh Natural number. Division number to mesh the region.

fitting If it is set to 0, then automatic fitting to the z-direction is not done.

- Details have not been written. See examples.

```
[1210] import("mt_graph.rr");
[1211] mtp.test5();    /* Klein bottle (8 figure) */
[1210] import("mt_graph.rr");
[1211] mtp.parametric_plot3d([s,t,s^2-t^2]);
[1210] import("mt_graph.rr");
[1211] def myfunc(X,Y) { if (X*Y < 0) return 0; else 1;}
[1212] mtp.parametric_plot3d([s,t,quote(myfunc(s,t)*s*t) | fitting=0];
```

Index

(Index is nonexistent)

(Index is nonexistent)

Short Contents

1	Function Manual.....	1
	Index.....	3

Table of Contents

1	Function Manual.....	1
1.1	Outline	1
1.2	Notation.....	1
1.3	Functions.....	1
1.3.1	mtg.plot3d.....	1
1.3.2	mtp.parametric_plot3d.....	1
	Index	3