mk_graph Manual

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 orgin 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);
```

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