

NAME

function_plotter.lua – function plotter for Lua-AKFAvatar

SYNOPSIS

function_plotter.lua [*function*]

DESCRIPTION

Function plotter for Lua-AKFAvatar. You can enter a function for the variable x , which will then be plotted. For example, enter something like this: "(x/5)^3"

You can use the following operators:

- + plus (addition)
- minus (substraction)
- * multiply (multiplication)
- / divide (division)
- ^ exponentation (for example use "x^3" for x^3)
- % modulo (the rest of a division)

For fractions you can use either a point or a comma as decimal mark. So "0.5" or "0,5" is the same. You cannot use a thousands separator. The number π can be written as "pi".

You can use the following functions:

- sqrt**(x) square root (\sqrt{x})
- exp**(x) e^x
- log**(x) natural logarithm
- log10**(x) base-10 logarithm
- deg**(x) convert to degree (x in radians)
- rad**(x) covert to radians (x in degree)
- sin**(x) sine (x in radians)
- sinh**(x) hyperbolic sine (x in radians)
- asin**(x) arc sine (x in radians)
- cos**(x) cosine (x in radians)
- cosh**(x) hyperbolic cosine (x in radians)
- acos**(x) arc cosine (x in radians)
- tan**(x) tangent (x in radians)
- tanh**(x) hyperbolic tangent (x in radians)
- atan**(x) arc tangent (x in radians)

ATTENTION: The argument for these functions must always be put in parentheses!

If you often need special functions or constant, it's easy to add them to the script.