Java Mathematics

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1. Various mathematics examples:

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prog1 = "clear;\n\ a=1;\n\ b=1;\n\ controlVar(a,b);\n\ f(x)=sin((a)*x)+sin((b)*x);\n\
plot(\"zFunctionPlotPlugInDemo1\",f,log);\n"; prog2 = "clear;\n\ a= 1.0;\n\ b = 1.0;\n\
controlVar(a,b);\n\ f( x ) = sin( multiply( a, x ) );\n\ g( x ) = cos( multiply( b, x ) );\n\
plot2(f,g,-Pi,Pi);\n"; prog3 = "clear;\n\ a=3.1;\n\ b=5.1;\n\ controlVar(a,b);\n\
f(x)=(x^a);\n\ g(x)=(x^b);\n\ plot2(f,g,-Pi,Pi);\n"; prog11 = "clear;\n\ s=.5;\n\ m=1;\n\
f(x)=exp(-((x-m)^2)/(2*(s^2)))/(s*(2*Pi)^.5);\n\ plot(f);\n\ controlVar(s,m);\n"; prog12 =
"clear;\n\ a=1;\n\ g(x)=sin(x)^(abs(x)/a);//a function\n\ f(x)=diff(g(x),0,x); //and its
derivative\n\ plot(g,f); //plot them\n\ controlVar(a);\n"; prog4 = "clear;\n\ a=1;\n\
controlVar(a);\n\ f(x,y)=sin(abs(x*a)-abs(y));\n\ plot3f(\"zPlot3FPlugInDemo2\",f);\n";
prog5 = "clear;\n\ a=1;\n\ controlVar(a);\n\ f(x,y)=sin(abs(x*a)-abs(y));\n\
color3d(\"zColor3DPlugInDemo2\",f);\n"; prog6 = "clear;\n\ a=1;\n\ controlVar(a);\n\
f(x,y)=cos(abs(x*a)+abs(y))*(abs(x*a)+abs(y));\n\
plot3f(\"zPlot3FPlugInDemo3\",f);\n"; prog7 = "clear();\n\ var1 = 2.5;\n\ var2 = 1;\n\
controlVar( var1, var2 );\n\ f(x,y)=abs(cos(((var2)*x)^2+y^2))^(var1);\n\
plot3f(\"zPlot3FPlugInDemo1\",f);\n"; prog8 = "clear();\n\ var1 = 2.5;\n\ var2 = 1;\n\
controlVar( var2 );\n\ f(x,y)=abs(cos(((var2)*x)^2+y^2))^(var1);\n\
color3d(\"zColor3DPlugInDemo2\",f);\n"; prog9 = "clear();\n\ var1 = 1;\n\ var2 = 1;\n\
controlVar( var1, var2 );\n\ f(x,y)=cos((var2)*x) * sin((var1)*y);\n\
plot3f(\"zPlot3FPlugInDemo1\",f);\n"; prog10 = "clear();\n\ var1 = 1;\n\ var2 = 1;\n\
controlVar( var1, var2 );\n\ f(x,y)=cos((var2)*x) * sin((var1)*y);\n\
color3d(\"zColor3DPlugInDemo2\",f);\n"; function execute(program) {
document.fraidApplet.execute(program); }
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