

Black-Box Testing

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Defect Number	Defect Description	Severity	Test Case No. OR Description
1	After plotting a function on the graph, you cannot change that function or add new functions to the graph, the 'Plot' button will not work. User must restart the program entirely.	2	Elementary Function 001
2	Log(x) does not work. When a function is plotted that contains 'log(x)' the program returns an error that states 'Function not defined.'	2	Elementary Function 002
3	Functions like $\ln(x)$, $\arcsin(x)$, $\arccos(x)$, \sqrt{x} sort of work. An error still appears saying 'Function is not defined' but the function does appear to graph correctly.	3	Elementary Function 002
4	Program does not scale graph to fit the data. Although unsure if this is supposed to happen or not, it makes the actual usage of the program very confusing to use.	3	Elementary Function 001/002
5	Upon clicking a program button for an operation, it only appends the command to the first function being plotted. If you are a user and you are working on the third function for example, you can not use the buttons to append any text, you must manually type it.	2	Elementary Function 001/002
6	No indicator between open and closed ends on piecewise function. In a typical graphing calculator, open ends would be notated on the ends of functions with open circles and closed by closed circles.	3	Piecewise Functions 002
7	Setting the domain range to a negative number causes a large black bar to appear on the graph, ideally this output would cause an error or not be allowed	2	Setting Range of X 001
8	Graph colors appear fine but are relatively	3	Graph Color 001

	hard to see. Lines should probably be made thicker or colors shouldn't be so bright for better user visibility.		
11	Upon graphing the function " $1/x$ ", which includes a discontinuity, the program does not mark the discontinuity.	1	Discontinuities 001
12	Upon graphing the function " x^2 ", which includes an end point at 0, the end point is not marked.	1	Endpoints 001
13	Upon graphing two lines that intersect, the intersection is not shown.	2	Coordinates 001
14	Piecewise function dialog box does not always allow entry	1	Piecewise 001
15	Piecewise function colors are different	2	Piecewise 003
16	There are no options to shrink the x or y axis, also the instructions do not explain how to do so.	2	Shrunked axis 001
17	Clicking on an intersecting point does not cause the points coordinates to appear	2	Special Point 001
18	Clicking on an endpoint does not cause the points coordinates to appear	2	Special Point 002
19	There are no text instructions available along with the calculator.	2	Instructions 001
20	Unable to center graph at a specific location, provided instructions also do not explain how to do so.	2	Center Graph 001
21	When selecting an operator, there is no indicator of where the operands go in the function area.	2	Operand Indicator 001
22	Plotting garbage input does not prompt a dialogue box informing the user that the input is bad	2	Bad Input 001
23	Choosing colors for two different graphs still plots the lines with black, not changing the colors at all.	3	Color Chooser 002

24	Using subtle, bad input “~x + 4” would not prompt the software to inform the user that the equation was not properly inputted.	2	Bad Input 002
25	Spacing around the operator will not allow the graphing calculator to plot a graph, even though it is valid input.	1	Plotting “2 * x” vs “2*x” in a single function
26	There is no location to input a zoom in value.	2	Zoom 001
27	The slope of the line(s) is always 1 or -1 depending on what the input is.	1	Elementary Function 001