

wxMaxima for Calculus II: Errata, Bugs and Common Problems

Contents

| | | |
|----------|------------------------|----------|
| 1 | Errata | 2 |
| 1.1 | Module 0 | 2 |
| 1.2 | Module 1 | 2 |
| 1.3 | Module 2 | 2 |
| 1.4 | Module 3 | 2 |
| 1.5 | Module 4 | 2 |
| 1.6 | Module 5 | 2 |
| 1.7 | Module 6 | 2 |
| 2 | Bugs | 3 |
| 3 | Common Problems | 4 |

1 Errata

1.1 Module 0

1. pg. 19, Exercise 7: It is implied that the coordinates require a decimal approximation – they do not. In addition, “closed circles” should be written “closed points” (indicated with `point_type`).

1.2 Module 1

1. pg. 28, Example 1.2.4: The `log` solutions obtained from `integrate` require absolute values in the arguments (we end up with the natural log of a negative number, which is undefined). To force Maxima to behave correctly, we have to type `logabs:true` prior to performing the integral. This only appears to work correctly on, for example, an argument of $1/\cos(x)$, NOT an argument of `sec(x)`.
2. pg. 35, Example 1.3.4: Same problem as Example 1.2.4.

1.3 Module 2

1.4 Module 3

1.5 Module 4

1.6 Module 5

1.7 Module 6

2 Bugs

1. filled_func:

This command requires the user to indicate an upper and lower function to shade between. In some versions of wxMaxima, `filled_func` malfunctions if the lower function is a constant. For example, the following code may produce a filled trapezoid rather than following the shape of $f(x)$:

```
filled_func=true,  
  filled_func=f(x),  
  explicit(0,x,-1,2),  
filled_func=false
```

If this bug causes a problem, you can work around it by adding a very small *explicit function of x*: `0.0000000001*x` (or any other sufficiently small number), for example:

```
filled_func=true,  
  filled_func=f(x),  
  explicit(0.0000000001*x,x,-1,2),  
filled_func=false
```

This idea can be extended to any other constant bounding function $g(x) = c$ by just using `c+0.0000000000001*x`.

3 Common Problems

1. By default, **Enter** should create a line break, while **Shift+Enter** evaluates a command. If you want to change this configuration, go to Edit → Configure, and check or uncheck “Enter evaluates cells”.
2. Variable assignments persist until they are either reassigned or cleared. If you are bouncing around in a worksheet to work on several problems, `kill(all)$` can be used to clear all variable assignments at the beginning of each problem. Some users prefer to start every new problem this way “just in case”.
3. wxMaxima will frequently hang on bad code. If the program freezes or does not say “Ready for user input” in the lower right corner of the window, you may have to start a new wxMaxima session and copy/paste your code into that session.