

# Helpful Hints for Working with Egrade

The most important thing to keep in mind is that computer syntax is important! It is the same as with your calculator. You must learn to enter a mathematical expression correctly so that the computer (or calculator) will interpret the expression as you intended.

## 1. Basic syntax rules (similar to what you do with your graphing calculator)

- You can type an asterisk (i.e. \*) for multiplication. You can type a number and letter or a number and function together (like 2x or 2sin(x)) without the \*, but if you multiply two variables or functions together, you must use the \* between them (like x\*y or x\*sin(x)).
- Use the ^ for exponents
- Use e for the base of the natural logarithm (2.718....)
- Type pi for 3.14159...
- The square root function is **sqrt(x)** or you can type  $x^{(1/2)}$  or  $x^{0.5}$  instead.

## 2. PARENTHESES ARE YOUR FRIENDS!! But don't go overboard.

- Most important rule! If you have more than one thing in a numerator or denominator of a fraction, or more than one thing in an exponent, you need to put all those items inside parentheses.

For example,  $e^{2x}$  would need to be written as  $e^{(2x)}$ . If you wrote  $e^2x$  instead, this would be interpreted as  $e^2 \cdot x$ , not what you wanted. If your answer is  $(3x)^2$ , you would enter  $(3x)^2$ . If you entered  $3x^2$ , that would be interpreted as  $3 \cdot x^2$ .

If you want to enter  $\frac{1}{x+1}$ , you would need to type  $1/(x+1)$ . If you wrote  $1/x+1$  without any parentheses, this would be interpreted as  $\frac{1}{x} + 1$ .

If you want to enter  $\frac{2x^2+1}{3x-4}$ , you would need to type  $(2x^2+1)/(3x-4)$ . Both the numerator **and** denominator need to be placed inside parentheses.

But if you just want  $\frac{5}{x}$ , you can type that as  $5/x$  with no need for parentheses.

- Second important rule: Use parentheses with functions

You always need to write  $\sin(...)$  or  $\cos(...)$  or  $\ln(...)$  with the parentheses, where the ... stuff inside the parentheses indicates the expression you want to compute with that

function. You may see  $\sin 2x$  written in the textbook, but you must enter this as  $\sin(2x)$ . If you type  $\sin 2x$  or  $\sin 2*x$ , that will be interpreted as  $\sin(2) \cdot x$ .

### 3. Be careful to use the same variable as in the question

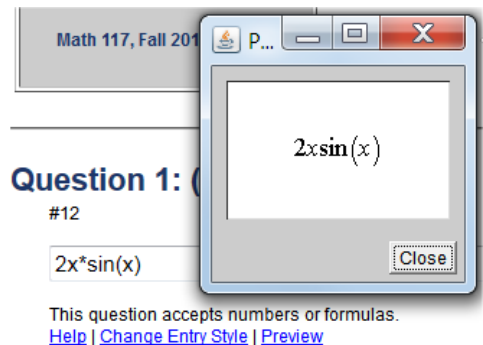
- If the question uses the variable  $t$ , then you must also use  $t$ . If the variable is  $W$ , then you must also use  $W$ . Don't get in the habit of always using  $x$  as the variable. Pay attention to what is used in the problem.
- Egrade is case sensitive. Do not enter capital  $X$  if the variable is a lowercase  $x$ . Do not enter  $w$  if the variable is  $W$ .

### 4. Accuracy!

- Numerical answers can be entered exactly (for example  $\text{sqrt}(2)$ ) or as a decimal (for example 1.414213). If entered as a decimal, use at least 3 decimal places unless the problem explicitly asks for something else.

### 5. Tools for checking how your typed your answers before they are graded

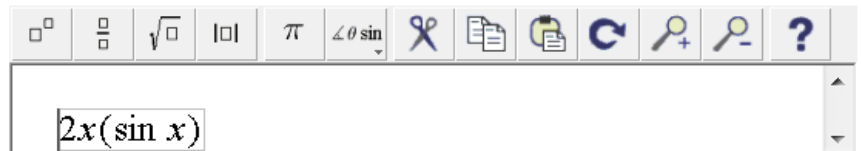
For answers that ask for a formula or an equation, you can click on the Preview option to view your response in standard mathematical notation. Preview allows you to get an idea of how Egrade will interpret your typed entry. The first time you use Preview there will be a short delay as some additional java tools are downloaded.



If you are using a Windows computer, you might want to look at "Change Entry Style" (this is not available on Macs—but on the other hand, Preview seems to work much nicer on the Mac!). Click on this link and then choose "Symbol

#### Question 1: (1 point)

#12



This question accepts numbers or formulas.

[Help](#) | [Change Entry Style](#)

Mode". In this mode you would use the templates along the top row to select what expression you want (for example, as shown in the figure: exponentiation, fraction, square root, absolute value, pi, trig functions). Errors in parentheses can sometimes be caught in this mode, giving you a chance to correct the error before grading the problem.

## 6. Use Egrade's Help

At the top of each page is a link to Egrade's Help. When that window opens, click on "Math Help" in the index along the left side and choose a subtopic. In addition, if the question accepts formulas or equations, there will also be a help link under the box where you type your answer (see the figures above) that will provide additional help for using Text Mode (or Symbol Mode).

## 7. What to do after you grade your answers

- After you grade a homework assignment and you get something wrong, click on "View Details" to see which answers were wrong and any comments that might be given about the problems.
- After you grade a homework assignment and you want to rework some problems, click on the "quit and save" button to exit that session, then select the assignment again from the main page. Do NOT try to use the back button in your browser.
- When you are finished with Egrade, either click on "grade" or click on "save and quit", even if you have chosen not to have anything graded. Do not just close the browser window.