

## eGrade Notes

- On the eGrade page that you get from the link on my website, register for this class first using the code I gave you in class.
- Once you have registered, from that page click on “select an Assignment”, then type in the login and password that you chose when you registered.
- eGrade shows how many problems you got correct, but not which ones are correct. Strategize about how to best use your time given this constraint.
- eGrade works best on a PC using Internet Explorer and second best on a Mac using Internet Explorer. Things seem buggy with Netscape.
- Previewing your answers to make sure they are correct is a good idea since the expression  $\frac{x^2 + 2}{\sqrt{x-1}}$  in normal mode must be typed in as  $(x^2+2)/\text{sqrt}(x-1)$ . However, eGrade seems to put in extra parenthesis sometimes.
- The following table gives some hint for how to enter expressions with eGrade:

+	Addition	e	2.71828...
-	Subtraction	pi	3.14159...
*	Multiplication	2.9E8	Sci. Notation for 290,000,000
/	Division		
^	Exponentiation		
sin	Sine	sqrt	Square Root
cos	Cosine	log	Log Base 10
tan	Tangent	ln	Log Base e
arcsin	Inverse Sine	abs	Absolute Value
arccos	Inverse Cosine		
arctan	Inverse Tangent		
sec	Secant		
csc	Cosecant		
cot	Cotangent		

## Notes for Individual Assignments

§1.1 Nothing weird that I could see. Looking at your submissions, I see that eGrade is case sensitive, and many of you are not taking this into account. “C” is different from “c”!!

§1.2 Use Q when it asks for  $Q_0$ .

Use the word percent instead of the symbol %.

“growth rate” is negative if the function is exponential decay.

§1.3 Nothing weird that I could see.

§1.4 Rounding off is weird! I teach WAITING to round any numbers until the end of a problem. eGrade wants you to round each number to 3 significant digits AS YOU GO!!! For example: When solving  $e^{x+5} = 4^x$ , I would solve it as follows:

$$e^{x+5} = 4^x$$

$$\ln(e^{x+5}) = \ln(4^x)$$

$$x + 5 = x \ln 4$$

$$5 = x(\ln 4 - 1)$$

$$\frac{5}{\ln 4 - 1} = x \approx 12.943$$

eGrade works similarly, but notice the difference!

$$e^{x+5} = 4^x$$

$$\ln(e^{x+5}) = \ln(4^x)$$

$$x + 5 = x \ln 4$$

$$x + 5 = x(1.39)$$

$$5 = x(1.39 - 1)$$

$$\frac{5}{1.39 - 1} = x \approx 12.8$$

that is, they rounded the number in the middle of the problem. Granted, in this case it's not much different, but depending on the problem it could make eGrade mark you wrong if you do it my way! For eGrade, follow eGrade's way, for the tests you'll have to follow my way. Sorry about that!

§1.5 eGrade seems to be having trouble grading #7. Put what you know is correct, and I will look at it separately if you are less than a point away from passing.

§2.4 Two things. When it asks for the formula for the derivative, if you think the derivative formula is  $x^2$ , don't put in " $f(x)=x^2$ " but instead just enter " $x^2$ ". Also, on the one that I have to grade because it wants you to type in all of your steps, please feel free to hand that in on paper if you don't want to struggle to type it in.

§3.1 Now that I've finished doing the assignment, it seems eGrade likes fractional exponents most of all. There was one that no matter what I did, it wouldn't take any form of the right answer, even the solution that it had! As usual, if you have one that you know is correct, but eGrade doesn't like it, skip it! Do another! You only need 80%! Email me to check it! I will be in LA at a conference and won't be able to check my email until Sunday...

§3.2 eGrade does number 4 wrong. If you need it to pass, just put in your answer and I will grade it separately.

§4.3 Hopefully people read this...I have something that is subtle that I haven't covered well in class that is coming up in eGrade. By definition a local min is a place where every point nearby is higher. Similarly, a local max is a place where every point nearby is lower. In general, our strategy of section 1, that is take the derivative, set it equal to zero, do the first or second derivative test to analyze what type of critical point you have, works well. In 4.3 however, when you are working on a restricted domain that is a closed interval, the endpoints typically are a local max or local min by definition. Figure 4.31 on page 181 illustrates what I mean. I feel like I've at least been unclear on this concept in class, if not down right incorrect at times. I don't like calling these points local extrema, because they don't seem like one (they are not a peak or trough) and in the final analysis for optimization, I am going to check the output there anyway. But eGrade wants you to include them in your list of local max's and min's. Have fun!