M 408C - Differential and Integral Calculus

Week 8 - 4.3

Quest HW 09 - Due Monday at 11:30p.

Gradescope HW 08 - Due Wednesday at 11:30p on Gradescope.

§4.3, #46, 84, 92

Additional Questions:

#1) Find the critical numbers of $f(x) = \dfrac{x^{2x}}{1 + e^{3x}}$ and determine if they correspond to a local min, local max, or neither.

#2) Find the x and y coordinates of the local mins and maxs of $f(x) = \dfrac{x}{x^2 + 5}$.

#3) Find the x and y coordinates of the local mins and maxs of $f(x) = 2\cos(x) - \cos(2x)$ on the interval $(0, \pi/2)$. *Hint:* $\sin(2x) = 2\sin(x)\cos(x)$.

Additional Thing: This is usually the point in the semester students (and professors!) start to feel especially worn out. One way to start feeling better is to get more sleep, and that usually means going to bed earlier, and that usually means getting your HW done earlier.

This week, if you turn in your HW before 9p on Tuesday, you will earn 20 extra points. In order to do this I have to change the Gradescope settings:

• The HW will be due at 9p on Tuesday. If you turn it in by the due date you earn the 20 points.

• HW submitted after 9p on Tuesday but before 11:30p on Wednesday will be denoted as late. You will *not* lose any points, but you will not earn the extra 20 points.