

# Mathematics 741

## ASSIGNMENT 2

due Tuesday, Oct. 29, 2019 – BEFORE CLASS

Please begin the solution to each question on a new page and then arrange the solutions in the correct order to assist marking.

*Hint: Problem 2.*

- You only know that  $f(y)$  is continuous. You cannot assume it is locally Lipschitz.
- This is a system of differential equations and must be treated as such. However, notice that the second equation decouples.