Math 310 Homework #1 Cover Sheet   name:

- tutorial, check one: ◯ T9:30;   ◯ T10:30;   ◯ T11:30;   ◯ R10:30;   ◯ R11:30;   ◯ R12:30.

- begin each problem on a new page & clearly identify each question.
- use words to describe your procedures & to interpret your results.
- put boxes around your final results.
- due on (lucky) friday 13 september in lecture.

question #	concept keywords & key formula/result
# 1.1.12	concept
	result
# 1.1.16	
# 1.2.3	
# 1.2.8	
# 1.3.13	

- note: subject to TA staffing only a subset of submitted problems will be graded.

- however, homework portfolios will also be graded on completeness & presentation.

- certain problems will be designated as practice problems; and although not subject to submission, will be assumed to have been covered for purposes of examinations.

- unless otherwise stated, numbered problems refer to Boyce/DiPrima, 7$^{\text{th}}$ edition.

Section 1.1

- practice: # 2,3,10,21

#12 you will have to choose a sensible domain and range for your direction field.

#16 in addition, show that there is a power function solution. Does it make sense?

Section 1.2

- practice: # 1,15

#3 this problem illustrates how to think about an ODE after you have a solution.

#8 summarize your results in a (boxed) sentence.

Section 1.3

- practice: # 1-6, 15, 28

#13 is your write-up pleasant to read? why do you think this was assigned?

Matlab Plotting

- from the class webpage, download the script *code01.m* & run it in Matlab.

- modify this script to plot <u>two</u> curves (on one plot) of your own choosing.

- please make substantive changes – in particular, change titles & axis limits.

- on the plot, explain your particular choices of curves.