Math 310 – Homework #8 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 $\boxed{\text{boxes}}$ around your final results.
- due on friday 08 november at start of lecture.

question #	CONCEPT keywords & MAIN formula/result
#7.4.2	concept
	result
# 7.5.23	
# 7.5.31	
# 7.6.8	
#7.8.11	
#7.6.19	

- problems for submission are indicated in **bold**.
- homework portfolios will also be graded on completeness & presentation (clarity & conciseness).
- maple integer arithmetic may be of some assistance here.

Section 7.4

#2 clarity of the presentation is most important here. Address part d) in 2-3 sentences.

Section 7.5

- practice: # 1-4, 15-18

#23 small twist on the standard problem. You will have to use the logic as outlined in problem #19.

#31 include two small matlab/maple direction fields (no code printouts, just fully labelled plots).

Section 7.6

- practice: # 4-7

#8 also calculate the solution in a phase-shifted form.

Section 7.7

- practice: # 7-9

Section 7.8

- practice: # 7-8

#11 highlight clearly the linear algebraic solves which are encountered in constructing the solution. (How many distinct solves are there?) This is a 3×3 problem, you must clearly indicate the logic of your solution method, but you should not present all of the arithmetic details.

Computing Focus

#19 of section 7.6 – produce four direction fields (no code, just labelled plots). Also clearly explain how you determined the transition values.