Math 310 – Homework #10 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 friday 22 november at START of lecture.

question #	CONCEPT keywords & MAIN formula/result
#5.2.7	concept
	result
# 5.2.21	
# 5.3.18	
# 5.5.14	
#5.6.5	

- 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 in checking your recursions here.

Section 5.1

- practice: glance over this section & make sure you are comfortable manipulating of summation notation.

Section 5.2

- practice: # 3-6

#7 recover the results in the back of the book, clearly indicate in words the *key* summation manipulations.

#21 do only part c), but begin by finding the recursion relation. Give the x^{96}-coefficient of for $H_{100}(x)$ – this is a question for thinking.

Section 5.3

- practice: # 3-6, 11-13

#18 go one term past the answer in the back of the book.

Section 5.4

- practice: # 1-8

Section 5.5

- practice: # 13-16

 # 14 I think that it is easier to satisfy the IVs when using the complex exponential form. Calculate the real-valued $y'(x)$ for $x < 0$ beginning from the real-valued form (like p 265, eq 26) and also the complex-valued form (like p 262, eq 16).

Section 5.6

- practice: # 1-4

 # 5