MATH 142 (Section 502) University of South Carolina
D. Meade Spring 1996

Homework Problems for Chapter 11
Infinite Series

Section	Page	Problems	
11.1	489	# 1–5, 7, 9, 10, 11, 13, 14, 21, 22, 23, 27	(CR # 1, 2, 4)
11.2	497	# 1–13, 15, 16, 19, 26, 27, 28, 38, 39, 40, 42	(CR # 1–4)
11.3	504	# 1–9, 11, 13, 14, 15, 23, 24	(CR # 3, 4)
11.4	512	# 1, 4, 5, 6, 9, 11, 13–16, 23, 36, 39	(CR # 1–4)
11.5	518	# 1, 3, 4, 8, 9, 13–19, 40	(CR # 1–4)
11.6	523	# 1–7, 15, 17, 23, 24	(CR # 1–3)
11.7	529	# 1, 2, 4, 5, 13, 14, 15, 17, 18, 25, 27	(CR # 1–4)
11.8	537	# 3, 7, 8, 19, 20, 23, 31,	(CR # 1, 3, 4)
11.9	539	# 1–8, 9–15, 19–29, 33–43, 49, 50	

Notes

- There are two main topics in this chapter: sequences and series. A common problem that students encounter with this material is to confuse the two objects.
- Another point of confusion is with series. We will talk about convergence of the series and of convergence of the sequence formed by the terms of the series. These are very different!
- The best way to avoid these types of errors is to pay close attention to the conditions under which the different techniques can be applied. Please, do not let yourself fall into these traps.
- I intend to use the computer to illustrate some of the different ideas that we will encounter. While this is sometimes illuminating, there are many times when the computer is of no use in resolving the issue at hand. For this reason, all results will also be confirmed by explicit reasoning and calculations.
- The assigned problems reinforce the main points presented in the text, and in the lectures. You should be sure you know how to work all of them. Note that references to examples in the text are provided for many problems. Don't be afraid to use these hints.
- Some problems will require you to use knowledge learned in Math 141. If you don't remember the appropriate technique, look it up!
- If you need more practice, there are many other problems in the text that are similar to the ones I have assigned.
- If you don't know how to do a problem, ask about it in recitation, class, or office hours!
- The third exam will cover the material from Chapters 9, 10 and the first few sections of Chapter 11. The fourth exam will cover all of Chapter 11.