

Due: Monday, Nov. 8

1. Do page 120, Exercise 2.
2. Do page 120, Exercise 5 (a) and (c).
3. Do page 131, Exercise 2.
4. Do page 132, Exercise 10 (a). (*Hint*: Separate the real and imaginary terms.) Also, determine whether the series is absolutely convergent.
5. Do page 146, Exercise 5 (b) and (d).
6. Do page 153, Exercise 3 (a), (b), and (d).
7. Do page 154, Exercise 4.

Hint: Differentiate $\sum_{n=0}^{\infty} z^n = \frac{1}{1-z}$; multiply the result by z .

8. Do page 161, Exercise 4 (e).
9. Do page 162, Exercise 18 (b). Also draw the given set and its image (by hand or by using *Mathematica*).
10. Do page 168–9, Exercise 1 (b) and (h).