

MATH 445 ASSIGNMENT 10

Fall 2009

Prof. Alexander

Due Friday November 13.

Kreyszig:

5.1 p. 170 #1, 2, 3, 5

5.2 p. 176 #3, 7, 8, 12, 13, 22, 23

5.3 p. 180 #1, 5, 6, 7

For problems in section 5.1, calculate enough terms so each series in your solution has at least 3 nonzero terms. In example 2 in the text, that would require going out to x^5 , as seen from the solution at the top of p. 170. Also, whenever there are more terms that you're not showing (i.e. the series isn't just a polynomial) you should write "+..." to express this.

Some even-numbered solutions:

$$5.2 (8) \frac{1}{256} (12) \infty (22) a_0(1 + x^2 + \frac{1}{2}x^4 + \frac{1}{6}x^6 + \dots) + a_1(x + x^3 + \frac{1}{2}x^5 + \dots)$$