

Homework #7

Section 5.1: 25, 28

Section 5.2: 3, 6, 21, also find the polynomial solution in 21 when $n = 4$, then find the second solution using variation of parameters.

Section 5.3: 3, 6, 10, 18.

In these problems you do not have to do the plotting or answer questions related to the plotting (though if you have graphing capability, you might find it interesting). Find the recursion relation on the coefficients. To check your answer, find the coefficients of the approximants without using series directly by differentiating the differential equation and evaluating at the appropriate point.

Hand in Section 5.2 #6, Section 5.3 #10, #18