Math 23 Diff Eq: Homework 5

due Wed Oct 31

3.9: rest of 17 (bcd) (plot can be replaced by sketch but be sure to label some values, width/height of peak, etc)

5.1: 1,

2,

3 (these first three are key),

8 (fun!),

17,

26 (practise playing with the index in sums).

5.2: 2,

3,

15 (for b you could use example matlab code from the plot in HW4).

5.3: 2 (use the method of p. 261, not the usual power series matching of terms. Note $x_0 = 0$),

5,

7 (sketch of complex plane is elegant),

10 (for a, group a_n terms and simplify before equating coeffs in x_n).

5.5: 3,

4 (these amount to applying the solution forms learned, not hard),

13 (can replace plot with labelled sketch if you want).

7.1: 2 (easy),

7 (sketch in the x_1, x_2 plane).