610 Fall 2013– Homework 7 Due Th 10/31/13

1. (30 points) (Maximally flat degree 3)
    Obtain a low pass and high pass degree 3 maximally flat transfer functions.

2. (30 points) (Vo/Vi transfer function)
    Use the transfer functions of problem 1 to synthesize degree 3 low and high pass
    maximally flat Vout/Vin(s) via Vout/Vin = $-y_{21}/(1+y_{22})$.

3. (40 points) (Sensitivity via adjoint)
    Using the adjoint circuit, for the low-pass circuit of problem 2 find the sensitivity
    of Vout/Vin to the (first input side) capacitor and then to the (first input side)
    inductor.