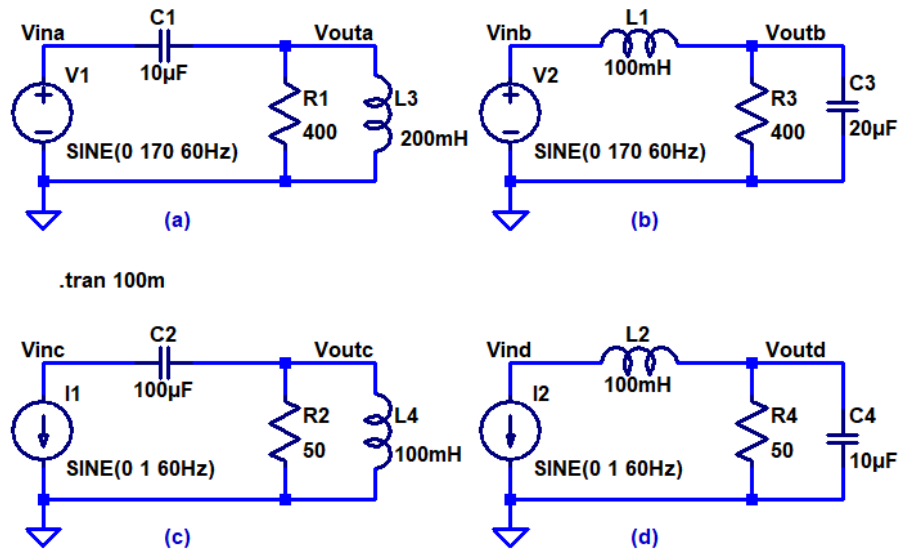


H.W. #7 EE 221 Spring 2019

Show your work for credit and put a box around each of your answers (follow the hw guidelines!)

1. Find the output voltage for each of the following circuits using AC analysis (as always make sure that your hand calculations are concise and clear). Sketch the output voltage and input voltage on the same plot in the time domain and compare to LTspice. Again, as in question 1, you may have to remove the DC signal in the output to properly compare your AC hand calculations to simulation results. There may also be a start-up transient you have to ignore since AC analysis is for steady-state operation. (8 points)



2. Re-draw the schematics in problem 1 with the input sources labeled as phasors and representing the capacitors and inductors using complex numbers (see Fig. P7.62 on page 452 of the book for example). (2 points)
3. Work book problem 7.67. Note that this problem uses a current dependent current source. Verify your answer using LTspice. (4 points)