Homework 11 (Extra Credit)
EE 220 Circuits I Fall 2019
Friday, December 6, 2019

1) PP11.14 Also, if the loads are supplied with $120\angle 0°$ V_{rms}, find the input rms phasor current and equivalent impedance.
2) If $v(t) = 318\cos(377t)$ V and $i(t) = 6\sin(377t + 65°)$ A for a load, find the RMS phasor current and voltage. Then, calculate the load impedance, power factor, and the instantaneous, apparent, complex, time-average real, & reactive powers.
3) 11.17 First, find and sketch the Thevenin equivalent 'seen' by the load.
4) 11.30
5) 11.50 Also, find power factor (don't forget to specify 'leading' or 'lagging').
6) 11.51 For circuit shown in **Fig. 10.97**. Per note on bottom of page 488, assume voltage source is rms phasor.
7) 11.54 Per note on bottom of page 488, assume current source is rms phasor.
8) 11.69 Also, find the rms phasor current from the source before and after the capacitor is connected.

Notes:

- This is an extra credit opportunity. If completed, the grade for HW #11 will replace your lowest HW *or* quiz grade (whichever helps most).
- Extra motivation- There will be *at least* one similar question dealing with AC power on the final.

Due by 4 pm Tuesday, December 10, 2019.