

Desk Copy

ECE 301  
Fall Semester, 2005  
Test #4

wlg Version A

Name \_\_\_\_\_  
Print (last, first)

Work the exam on your own engineering paper. Work on one side of your paper only. Attach your work to the back of this exam sheet and staple in the top left hand corner. Each problem counts 20%.

- (1) You are given the circuit of Figure 1. Find the phasor current  $I$ .

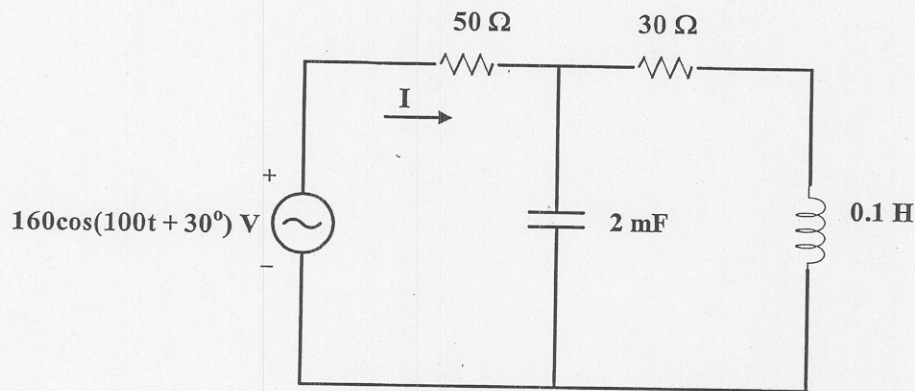


Figure 1: Circuit for problem 1.

- (2) You are given the circuit of Figure 2. Find the phasor voltage  $V_1$  using nodal analysis.

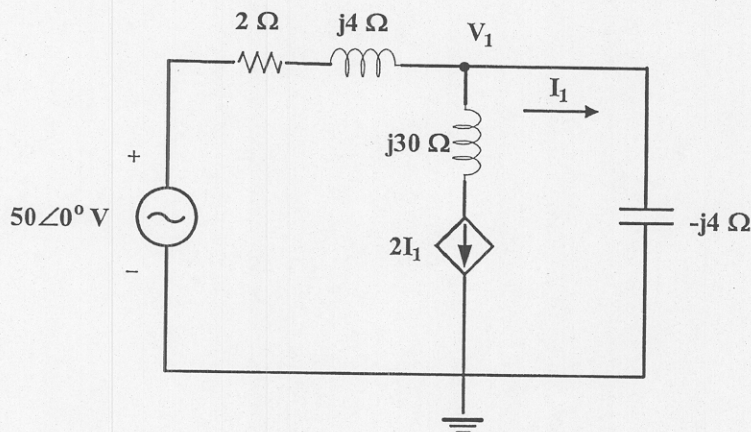


Figure 2: Circuit for problem 2.

- (5) You are given the AC circuit shown below.
- (a) Determine the complex power supplied by the source.
  - (b) Determine the power factor.

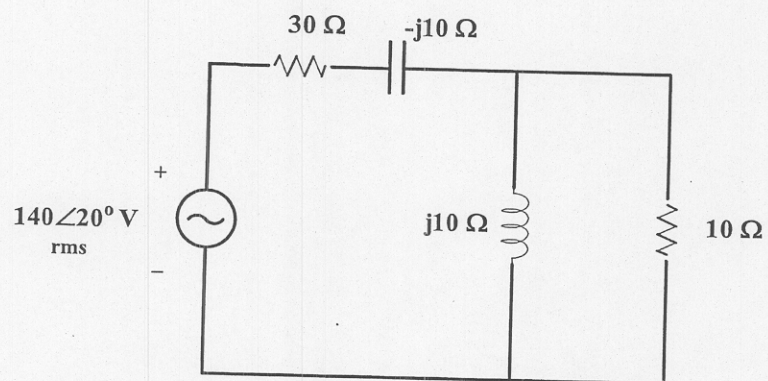


Figure 5: Circuit for problem 5.