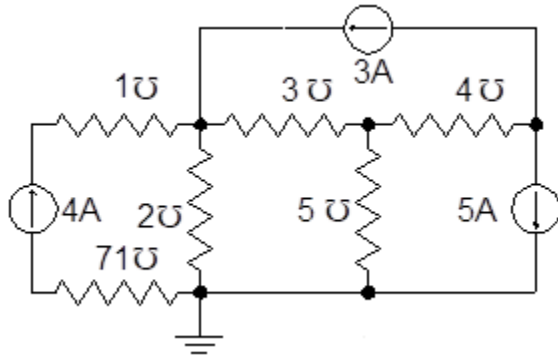# Homework 6 Nodal Analysis
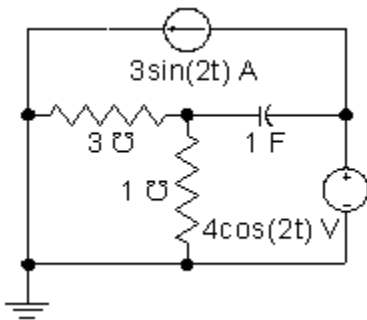
HW26:

Use nodal analysis to solve for all the node potentials in the circuit below:
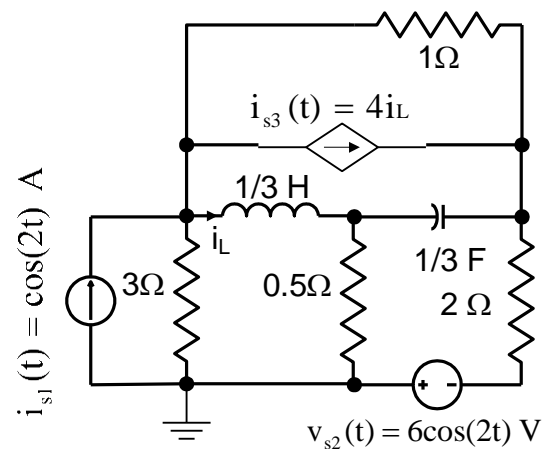

HW27:

Use nodal analysis to solve for all the node potentials in the circuit below:
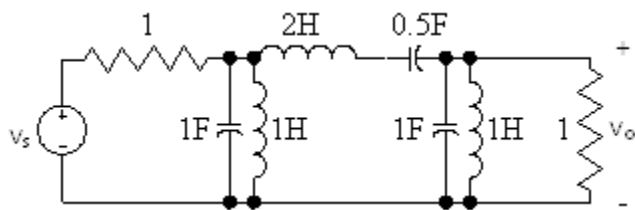

HW28:

Consider the circuit shown below.

A. Write the Nodal Analysis Matrix equation you would get if you pretend the dependent source were independent. Make all other simplifications.
B. Put the matrix in standard form by inserting the source dependency and reorganizing the equation.

$i_{s3}(t) = 4i_L$

$v_{s2}(t) = 6\cos(2t)$ V

$i_{s1}(t) = \cos(2t)$ A

HW29:

Use nodal analysis to find the transfer function H(s) = Vo/Vs for the circuit below:

HW30:

Use nodal analysis to find the current through the 5Ω resistor in the circuit below: