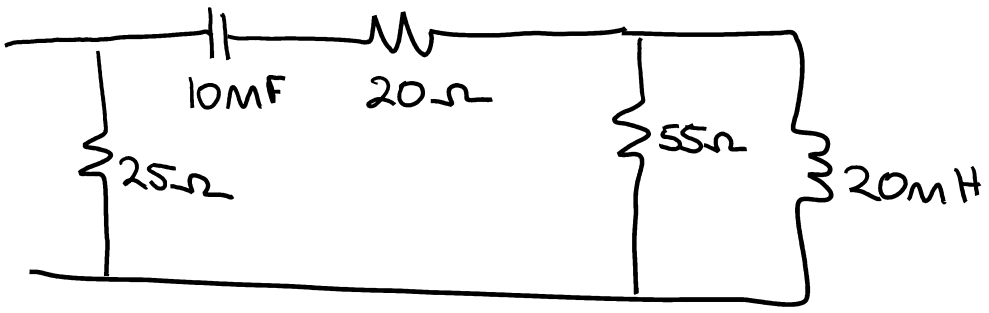
At Tutorial 7 – Marked Question (26th July 2019)

Chapter 10, Ex 40a: Impedance and Admittance

Consider the network below, and determine the equivalent impedance seen looking into the open terminals if ω = 1 rad/s.



At Tutorial 7 – Unmarked Questions (26th July 2019)

Chapter 10, Ex 28: Phasors

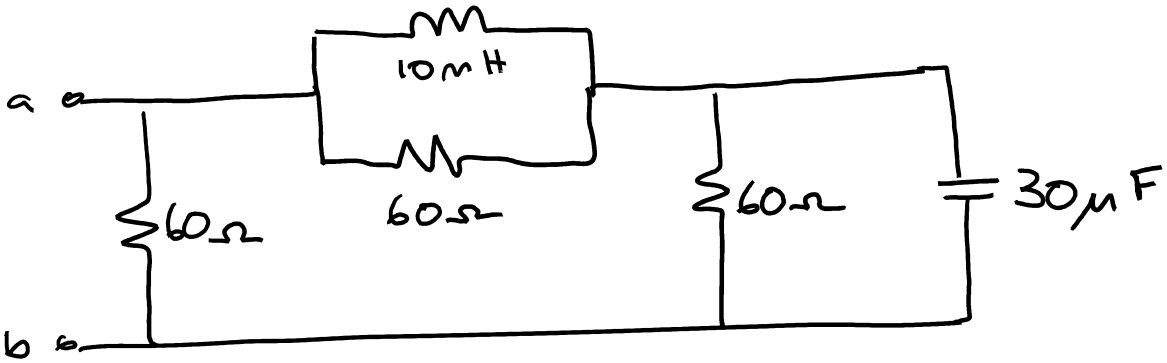
The following complex voltages are written in a combination of rectangular and polar form. Rewrite each, using conventional phasor notation (i.e. a magnitude and angle):

a) $\frac{2-j}{5\angle 45^0}$ V

b) $\frac{6\angle 20^o}{1000} - j$ V

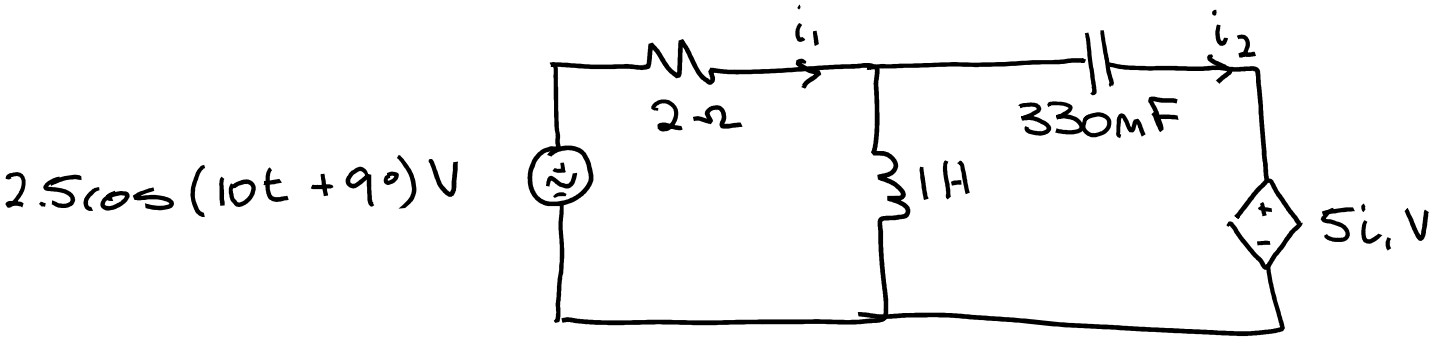
c) $(j)(52.5\angle -90°)$ V

Chapter 10, Ex 43a: Impedance and Admittance



Calculate the equivalent impedance seen at the open terminals of the network shown above if *f* is equal to 1 Hz.

Chapter 10, Ex 52: Nodal and Mesh Analysis



Employ phasor analysis techniques to obtain expressions for the two mesh currents i_1 and i_2 as shown in the figure above.