Name: Student ID:

Pre-tutorial 7 Questions (to be attempted before class on July 26th, 2019)

Chapter 10, Ex 33: Phasors

Assuming the passive sign convention and an operating frequency of 314 rad/s, calculate the phasor voltage **V** which appears across each of the following when driven by the phasor current **I** = 10 ∠0° mA.

a) A 2 Ω resistor.

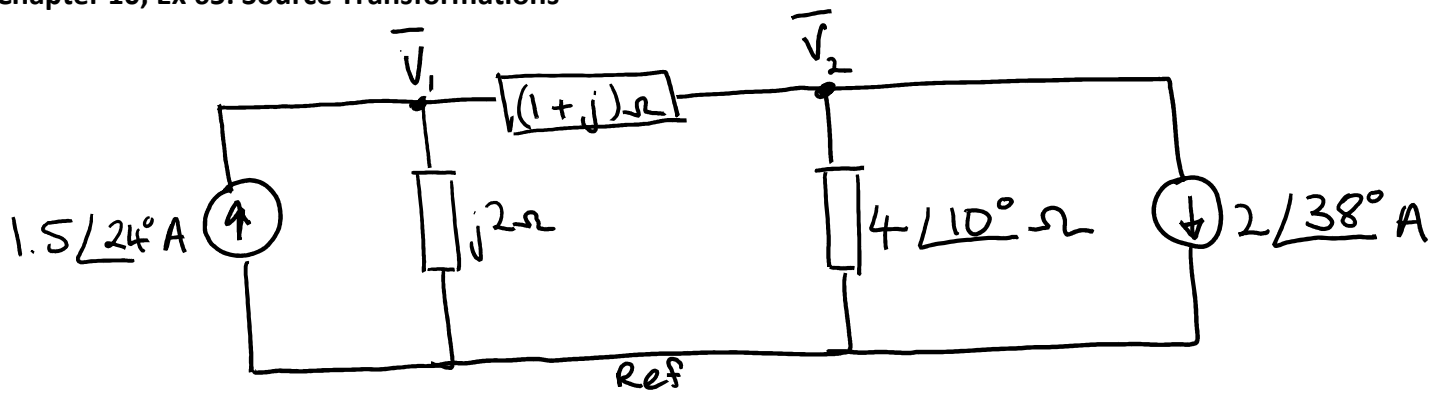
b) A 1 F capacitor.

c) A 1 H inductor.

d) A 2 Ω resistor in series with a 1 F capacitor.

e) A 2 Ω resistor in series with a 1 H inductor.

Chapter 10, Ex 65: Source Transformations



For the circuit above, perform a source transformation on each source, simplify the resulting circuit as much as possible, and calculate the current flowing through the (1 + *j*) Ω impedance.