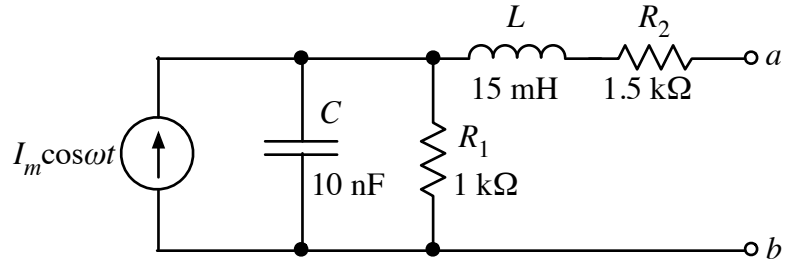


Use AC analysis to find the *complex* Thevenin equivalent with respect to nodes *a* and *b* in the circuit shown at right. The Thevenin source should be represented as a complex number in magnitude-and-phase form. The Thevenin impedance can be expressed in either real-and-imaginary or magnitude-and-phase form. Include a sketch of the Thevenin equivalent circuit.



The amplitude of the source is $I_m = 10 \text{ mA}$, and the angular frequency is $\omega = 10^5 \text{ rad/s}$.

$V_{TH} =$ _____

$Z_{TH} =$ _____