

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-andphase 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 $I_m = 10$ mA, and the angular frequency is $\omega = 10^5$ rad/s.

V_{TH} = _____

Z_{TH} = _____