This math is needed to analyze linear circuits (electronic and otherwise)!

1. Redo practice problem B.1 in Alexander and Sadiku, 5h Edition. Changes: \( z_1 = 4 - j3 \), \( z_2 = 4 + j11 \). Other values from book.

2. Redo practice problem B.2 in Alexander and Sadiku, 5h Edition. Changes: (a) \(-7 \angle 200^\circ\), (c) \( 9e^{-j25^\circ} \).

3. Redo practice problem B.4 in Alexander and Sadiku, 5h Edition. Change: (a) \( 3 \rightarrow 2 \).

4. Redo practice problem B.5 in Alexander and Sadiku, 5h Edition for \( A = 2 - j4 \).

5. Redo practice problem 9.1 in Alexander and Sadiku, 5h Edition for \( 4 \sin(4\pi t - 60^\circ) \).

6. Redo practice problem 9.4 in Alexander and Sadiku, 5h Edition for \( v = 6 \cos(3t + 40^\circ) \) and \( i = -3 \sin(9t + 15^\circ) \).

7. Redo practice problem 9.6 in Alexander and Sadiku, 5h Edition for \( v_1 = -5 \sin(\omega t - 60^\circ) \) V.

8. Redo practice problem 9.8 in Alexander and Sadiku, 5h Edition for \( v = 8 \cos(\omega t - 60^\circ) \) V and \( C = 20 \mu F \).

9. Shown below is the voltage and current of some circuit element.
   a) Find \( v(t) \) and \( i(t) \).
   b) Express these as phasors \( V \) and \( I \).
   c) Do these waveforms correspond to an inductor or a capacitor? What is the value of the inductance/capacitance?