Introduction
This experiment investigates the magnitude and phase of voltages in a series RC circuit. These measurements will be correlated with the appropriate circuit theory. Phase angles will be measured in two ways – by reading the time difference of zero-crossings in the time domain and by the Lissajous pattern method.

Solve for the current \( i(t) \) in the circuit shown. Express your answer in polar, rectangular, and sinusoidal forms.

Solve for \( V_D \) and express your answer in polar, rectangular, and sinusoidal forms.