

PROBLEM:

A signal $x(t)$ is defined as

$$x(t) = 20 \cos(300\pi t + \pi/4) + 5\sqrt{2} \cos(300\pi t + \pi) + 5\sqrt{2} \cos(300\pi t - \pi/2)$$

- Plot the phasor representation of each of the sinusoidal components in $x(t)$ in the complex plane.
- Add the three phasors that you plotted in part (a).
- Express $x(t)$ in the form $x(t) = A \cos(\omega_0 t + \phi)$.