

PROBLEM:

Define $x(t)$ as

$$x(t) = 5 \cos(\omega_0 t + 3\pi/2) + 4 \cos(\omega_0 t + 2\pi/3) + 4 \cos(\omega_0 t + \pi/3)$$

- (a) Express $x(t)$ in the form $x(t) = A \cos(\omega_0 t + \phi)$ by finding the numerical values of A and ϕ .
- (b) Plot all the phasors used to solve the problem in part (a) in the complex plane.