

PROBLEM:

Define $x(t)$ as

$$x(t) = 2 \cos(0.5\pi t - 3\pi/4) + 2\sqrt{3} \cos(0.5\pi(t + 1.5))$$

- (a) Express $x(t)$ in the form $x(t) = A \cos(\omega_0 t + \phi)$ by finding the numerical values of A and ϕ , as well as ω_0 .
- (b) Plot all the complex amplitudes (phasors) as vectors in the complex plane in order to show how vector addition was used to solve part (a)