PROBLEM:

Define $x(t)$ as

$$x(t) = 2\cos(\omega_0 t - 3\pi/2) + 3\cos(\omega_0 t + 13\pi/4) + 4\cos(\omega_0 t + \pi/4)$$

(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.