
EXERCISE 2.8: Consider the two sinusoids,

$$x_1(t) = 5 \cos(2\pi(100)t + \pi/3)$$

$$x_2(t) = 4 \cos(2\pi(100)t - \pi/4)$$

Obtain the phasor representations of these two signals, add the phasors, plot the two phasors and their sum in the complex plane, and show that the sum of the two signals is

$$x_3(t) = 5.536 \cos(2\pi(100)t + 0.2747)$$

In degrees the phase should be 15.74° . Examine the plots in Fig. 2-16 to see whether you can identify the cosine waves $x_1(t)$, $x_2(t)$, and $x_3(t) = x_1(t) + x_2(t)$.

