PROBLEM:

Define the following complex exponential signal:

$$s(t) = 6e^{-j\pi/3}e^{j(\pi/4)t}$$

(a) Make a plot of $s_i(t) = \Im m\{s(t)\}$. Pick a range of values that will include exactly three periods of the signal. Label your plot in detail, showing peak locations and zero crossings.

(b) Express $s_i(t)$ in the form $x(t) = A\cos(\omega_\circ t + \phi)$. Give the numerical values for A, ϕ, and $\omega_\circ$.