PROBLEM:

Simplify the following and give the answer in polar form. Make a plot of all the vectors involved in the complex addition.

(a) $z_a = e^{-j2\pi/3} + e^{j2\pi/3}$

(b) $z_b = 1 + e^{j(\pi/2)} + \sqrt{2}e^{-j(3\pi/4)}$

(c) In addition, write the MATLAB statements that will perform the addition and also display the magnitude and phase of the result. Consult help on the MATLAB functions abs and angle, and also the SP-First Toolbox functions: zprint, zvect, etc. Use these to check your hand calculations.