

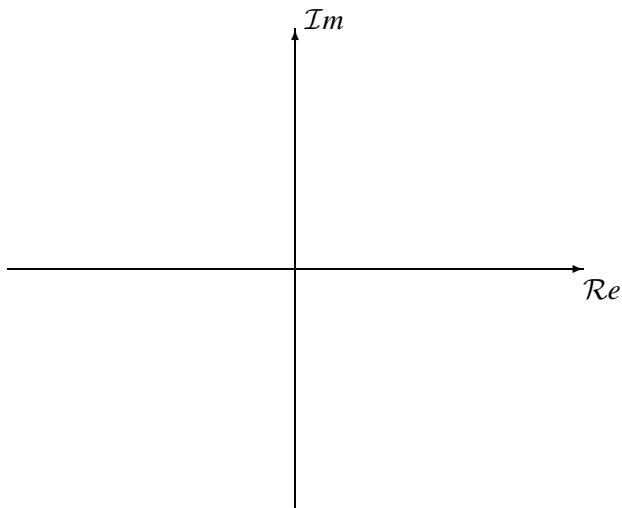
PROBLEM:

Simplify the following complex-valued expressions. In each case reduce the answers to a **simple** numerical form.

Let $Y = \sqrt{2} - j\sqrt{2}$ and $Z = e^{j\pi/3}$.

- (a) If $A = Y + Z$, what is its numerical value expressed in rectangular form? **Plot the vectors Y , Z , and A in the complex plane.**

$A =$ _____



- (b) If $B = ZY^*$, what are the numerical values of the magnitude and phase associated with the polar form representation?

$|B| =$ _____, $\angle B =$ _____

- (c) If $C = (jZ)^{65}$, what is its numerical value expressed in rectangular form?

$C =$ _____