

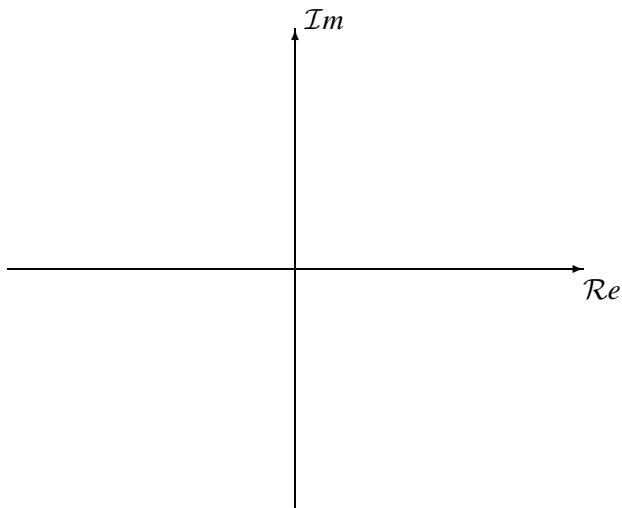
PROBLEM:

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

Let $Y = 1 + j\sqrt{3}$ and $Z = e^{-j\pi/6}$.

- (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 $C = (jZ)^{66}$, what is its numerical value expressed in rectangular form?

$C =$ _____