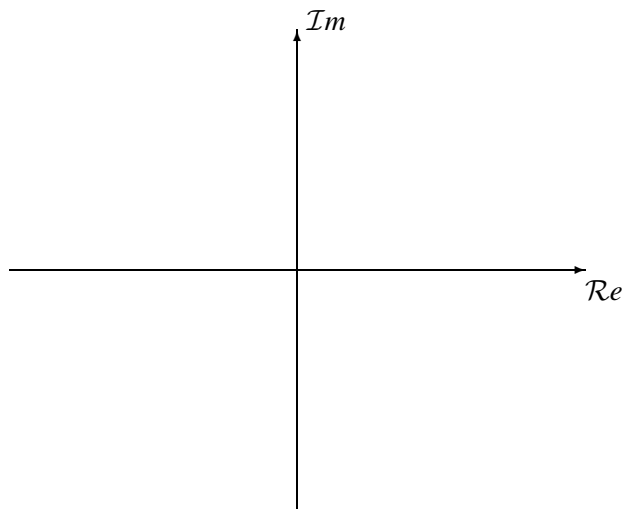## PROBLEM:

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

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

(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?

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

(c) If $C = (jZ)^{33}$, what is its numerical value expressed in rectangular form?

$C =$ _____