
EXERCISE A.2: The inverse or reciprocal of a complex number z is the number z^{-1} such that

$$z^{-1}z = 1.$$

A common mistake with the inverse is to invert $z = x + jy$ by taking the inverse of x and y separately. To show that this is wrong, take the specific case where $z = 4 + j3$ and $w = \frac{1}{4} + j\frac{1}{3}$. Show that w is not the inverse of z , because $wz \neq 1$. Determine the correct inverse of z .

