

PROBLEM:

Simplify the following complex-valued expressions: Give the answer in *either* Cartesian or polar form, whichever is most convenient.

(a) $z = 11e^{j\pi/5}$, evaluate the conjugate, z^* .

(b) $z = 3e^{-j6\pi/5}$, evaluate $1/z$.

(c) $z = 7e^{-j9\pi/11}$, evaluate $|z|^2$.

(d) $z = 17e^{j11\pi/6}$, evaluate $\Im\{z\}$.