

# 1 Graphs of the Complex Conjugate

For each of the following complex numbers, determine the complex conjugate, square, and norm. Then, plot and clearly label each  $z$ ,  $z^*$ , and  $|z|$  on an Argand diagram.

(a)  $z_1 = 4i - 3$

(b)  $z_2 = 5e^{-i\pi/3}$

(c)  $z_3 = -8$

(d) In a few full sentences, explain the geometric meaning of the complex conjugate and norm.