

## PROBLEM:

Simplify the following complex-valued expressions. Give your answer in polar form. Reduce the answers to a simple numerical form.

(a) For  $z = -2 - j3$ , evaluate  $1/z$ .

(b) For  $z = -2 - j3$ , evaluate  $z^4$ .

(c) For  $z = -2 - j3$ , evaluate  $|z|^2$ .

(d) For  $z = -2 - j3$ , evaluate  $z/|z|$ .