§4.3 #1. Apply the Euclidean algorithm in \( \mathbb{Z}[i] \) to find \( \text{gcd}(z, w) \).
(Don’t feel that you have to finish this – once you’ve got the hang of the division algorithm you can go on to #2.)
(If you wrote your final project on this last quarter, you can help explain things to your colleagues, and use your program to check their answers.)

a. \( z = 8 + 6i, \ w = 5 - 15i \).
b. \( z = 4 - i, \ w = 1 + i \).
c. \( z = 16 + 7i, \ w = 10 - 5i \).

§4.3 #2. Factor each one as a product of irreducible elements in \( \mathbb{Z}[i] \).

a. 6
b. \( 11 + 7i \)
c. 7
d. \( 4 + 3i \)