Unit 7.2 Introduction to Complex Numbers and Addition

1. Simplify the following using complex numbers

   a. i^{33}

   b. i^{2}

   c. i^{100}

   d. i^{39}

2. Express the following as complex numbers

   a. $\sqrt{-25}$

   b. $-\sqrt{-16}$

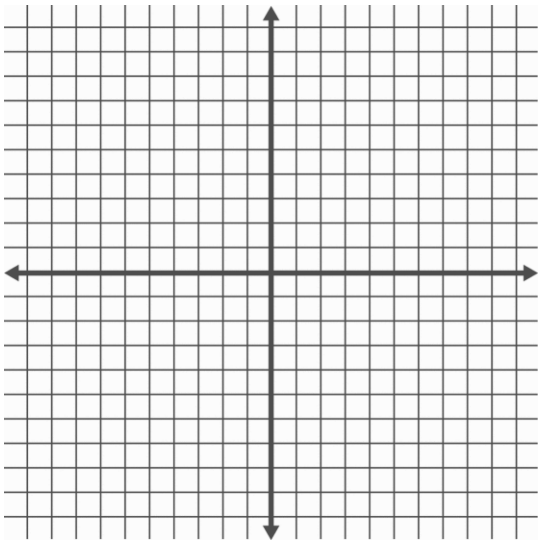
   c. $8 + \sqrt{-16}$

   d. $-\sqrt{-4x^{2}}$

   e. -25

   f. $12 + \sqrt{-81x^{6}}$

3. Plot the following rectangular coordinates on the graph
    a. (-4 + 7i)
    b. (-5 - 8i)
    c. (-7 + j5)
    d. (-4 + 7i)
    e. (8 + j3)



4. Perform the requested operation and simplify as much as possible
    a. (2.0 + 5.0i) + (5.0 - 3.0i)

    b. (-4 + 7i) + (8 + 6i)

    c. (9 – 9i) – (0 + 10i)

    d. (0.52 + j1.85) – (2.14 – j0.91)

    e. (5.0) + (1.5 – j2.4)