

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Instructions:** Please complete the following problems**Problem 1.** What is  $i^{11}$ ?**Problem 2.** What is  $i^{27}$ ?**Problem 3.** Simplify the expression:  $(6 - 2i)(2 - 3i)$ **Problem 4.** Simplify the expression:  $(5 - 4i) - (7 + 8i) + (6 - 2i)$ **Problem 5.** What is the conjugate of  $8 - 7i$ ?**Problem 6.** Write this quotient in standard form:  $\frac{2}{i-5}$ **Problem 7.** Write this quotient in standard form:  $\frac{2-3i}{4-2i}$ **Problem 8.** Write this quotient in standard form:  $\frac{-3}{i}$ **Problem 9.** Write this quotient in standard form:  $\frac{2-i}{5+i}$