Practice Problems 10

1. Solve the following recurrence relation and estimate Big-Oh:
   a. $T(1) = a$
      $T(n) = T(n-2) + b$
   b. $T(1) = 2$
      $T(n) = T(n-1) + n - 1$
   c. $T(n) = T(n-1) + 2n - 3$
      $T(1) = 3$

2. Combinatorics
   a. How many ways are there to fill 3 plates with 7 different soups?
   b. How many ways are there to assign the grades A, B, C, D, F to 8 students?
   c. How many ways are there to arrange 8 cups in a row?