Initialize parent population

loop for each generation from 0 to 20

  if (prevent marriage of gene carriers)
    Shuffle parent population so that carriers only occupy even positions of the array; place normal individuals elsewhere
  else
    Shuffle parent population array
  endif

  After random mating of parents (Mendelian inheritance), generate the offspring population

  Calculate the gene frequency and the percentage of heterozygotes or homozygous individuals in offspring’s population (to be the next parent population)
  Reinitialize the new parent population
  Record the calculated frequencies

endloop