Purpose:

Apply the Likelihood Principle to obtain maximum likelihood estimates of recombination between linked loci.

Keywords: Linkage Disequilibrium, Recombination, Likelihood

References:
Chapter 2: Linkage

ALA:

For the following data set determine if alleles (C,c,S,s) at two loci are in equilibrium. Your assay for each locus is a dominant marker (such as DART). Determine the maximum likelihood estimate of recombination between the C and S loci. Assume the assay was conducted on an F2. Hint: Create an EXCEL file similar to "Gamete and LD Expected frequencies with linkage and selfing.xlsx".

Assay	Observed	LOD(Obs|r=22)
C_S_	266	
C_ss	45	
ccS_	40	
ccss	70	
Total	421	