

$2N$	Generations to common ancestor of 2 lineages
$4N$	Approximate generations to common ancestor of population
$p^2 + 2pq + q^2$	Hardy-Weinberg
$1/2N_e = \sum_g 1/2N(g)$	Population size varying over time
$N_e = 4N_f N_m / (N_f + N_m)$	Unequal sex ratio
$F \approx 1/(1 + 4N_e \mu)$	Proportion of homozygotes with drift and mutation
$pA = \nu/(\mu + \nu)$	Mutation equilibrium
$pA = t/(s + t)$	Overdominant or underdominant equilibrium
$2s$	Survival probability of new mutant with multiplicative fitness
$\bar{w} = pAAwAA + pAawAa + paawaa$	Mean population fitness
$D = pAB - pApB$	Disequilibrium coefficient
$D' = D/\max(D)$	Normalized disequilibrium coefficient
$r^2 = \frac{D}{\sqrt{pA pa pB pb}}$	Squared disequilibrium correlation coefficient
$D_n = (1 - c)^n D_0$	Decay of disequilibrium
$D = \theta_\pi - \theta_S$	Tajima's D; θ_π is mean difference, θ_S is count of SNPs
$p^2 + pqf, 2pq - 2pqf, p^2 + pqf$	Inbreeding genotype frequencies
$Br - C > 0$	Hamilton's altruism formula
$h^2 = V_A/V_T$	Narrow sense heritability
$R = h^2 S$	Breeder's equation
Approximate breakpoints:	
$4N_e \mu$	Drift vs. mutation
$4N_e s$	Drift vs. selection
$4N_e m$	Drift vs. migration
$4N_e c$	Drift vs. recombination
m/s	Migration vs. selection