

Hardy-Weinberg Genetic Equilibrium Basics

Drag the symbol to the correct question.

p

q

p^2

q^2

$2pq$

$p+q=1$

$p^2 + 2pq + q^2 = 1$

What symbol is used to represent the recessive allele in a population?

What symbol is used to represent the dominant allele in a population?

What symbol is used to represent the homozygous dominant genotype in a population?

What symbol is used to represent the heterozygous genotype in a population?

What symbol is used to represent the homozygous recessive genotype in a population?

Which equation is used to represent the number of alleles in a population?

Which equation is used to determine the frequency of the genotypes/phenotypes?

Scenario:

Within a population of butterflies, the color brown (B) is dominant over the color white (b).

Which allele color would be represented by p ?

Which allele color would be represented by q ?

What genotype would be represented by p^2 ?

What phenotype would be represented by p^2 ?

What genotype would be represented by q^2 ?

What phenotype would be represented by q^2 ?

What genotype would be represented by $2pq$?

What phenotype would be represented by $2pq$?