

MATH LAB**● Predicting the Results of Crosses Using Probabilities****Background**

In rabbits, the allele B for black hair is dominant over the allele b for brown hair. You can practice using probabilities to predict the outcome of genetic crosses by completing the genetic problems below. Draw Punnett squares for each problem.

Analysis

1. Calculate the probability of homozygous dominant (BB) offspring resulting from a cross between two heterozygous (Bb) parents.
2. Calculate the probability of heterozygous offspring resulting from a cross between a heterozygous parent and a homozygous recessive (bb) parent.
3. Calculate the probability of heterozygous offspring resulting from a cross between a homozygous dominant parent and a homozygous recessive parent.
4. Calculate the probability of homozygous dominant offspring resulting from a cross between a heterozygous parent and a homozygous recessive parent.