

# Dihybrid Cross Problems

Define *dihybrid cross*:

## Background Information:

Dogs can have brown hair (B) which is dominant over white hair (bb). Dogs can also have green eyes (G) which are dominant over blue eyes (gg)

## Example 1:

Mother dog is heterozygous for her brown fur and heterozygous for green eyes

1. What is her genotype? \_\_\_\_\_
2. What are the four allele combinations she can make? \_\_\_\_\_

Father dog is homozygous for brown fur and has blue eyes.

1. What is his genotype? \_\_\_\_\_
2. What are the four allele combinations he can make? \_\_\_\_\_


How many of the offspring have:

1. Brown fur and green eyes? \_\_\_\_\_
2. Brown fur and blue eyes? \_\_\_\_\_
3. White fur and green eyes? \_\_\_\_\_
4. White fur and blue eyes? \_\_\_\_\_

**Example 2: BbGg x BbGg**


How many of the offspring have:

1. Brown fur and green eyes? \_\_\_\_\_

2. Brown fur and blue eyes? \_\_\_\_\_

3. White fur and green eyes? \_\_\_\_\_

4. White fur and blue eyes? \_\_\_\_\_

**Example 3:**

A mother dog has white fur and is heterozygous for green eyes. The father dog is heterozygous for brown fur and has blue eyes. Set up the cross and answer the following questions:


How many of the offspring have:

1. Brown fur and green eyes? \_\_\_\_\_

2. Brown fur and blue eyes? \_\_\_\_\_

3. White fur and green eyes? \_\_\_\_\_

4. White fur and blue eyes? \_\_\_\_\_