

Genetic Crosses that Involve 2 Traits

In rabbits, Grey hair is dominant to white hair. Also in rabbits, black eyes are dominant to red eyes.



GG = grey hair BB = black eyes
 Gg = grey hair Bb = black eyes
 gg = white hair bb = red eyes

1. What are the phenotypes (descriptions) of rabbits that have the following genotypes:

Ggbb _____ ggBB _____
 ggbb _____ GgBb _____

2. A male rabbit with the genotype **GGbb** is crossed with a female rabbit with the genotype **ggBb**. The square is set up below. Fill it out and determine the phenotypes and proportions in the offspring.

	Gb	Gb	Gb	Gb
gB				
gB				
gb				
gb				

How many out of 16 are:

Grey, red eyed _____
 Grey, black eyed _____
 White, red eyed _____
 White, black eyed _____

3. A male rabbit with the genotype **GgBb** is crossed with a female rabbit with the genotype **GgBb**. The square is set up below. Fill it out and determine the phenotypes and proportions in the offspring.

	Gb	GB	gB	gb
Gb				
GB				
gB				
gb				

How many out of 16 are:

Grey, red eyed _____
 Grey, black eyed _____
 White, red eyed _____
 White, black eyed _____

4. Set this one up on the back of this page. A male rabbit with genotype GgBb x with a female rabbit with genotype ggbb. Show the Punnett square and the expected offspring and their proportions.