**Genetic Crosses that Involve 2 Traits Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

|  |  |
| --- | --- |
| GG = gray hair Gg = gray hair gg = white hair | BB = black eyes Bb = black eyes 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 in just the gametes below.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

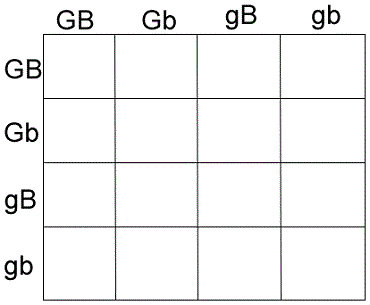
3. A male rabbit with the genotype GgBb is crossed with a female rabbit with the genotype GgBb The square is set up below. Fill it out and determine the phenotypes and proportions in the offspring.

How many out of 16 have grey fur and black eyes? \_\_\_\_

How many out of 16 have grey fur and red eyes? \_\_\_\_\_

How many out of 16 have white fur and black eyes? \_\_\_\_

How many out of 16 have white fur and red eyes? \_\_\_\_\_



4. Show the cross between a ggBb and a GGBb.

