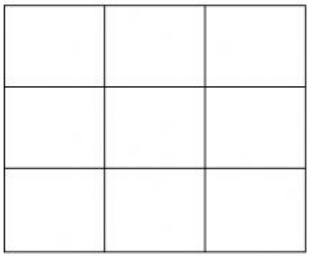
**Monohybrid Crosses Practice**

**For all of the following questions, use these facts: the trait is fur color (f). Black fur is dominant over gray fur.**

1. Write the letter of the dominant allele. _____
2. Write the letter of the recessive allele. _____
3. Write out the homozygous dominant genotype (2 alleles). _____
4. Write out the heterozygous genotype (2 alleles). _____
5. Write out the homozygous recessive genotype. _____
6. Write the genotype for gray fur. _____
7. Write the genotype for Black fur. _____ or _____

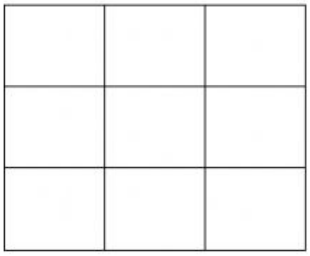
**Still using fur color, do the following monohybrid cross problems. (Remember: Black fur is dominant over gray) Place the mother's genotype is on the left vertical side and the fathers genotype is on the top horizontal side.**



1. If the **mother is homozygous recessive** and the **father is homozygous dominant**.

   **a) genotype probabilities:**

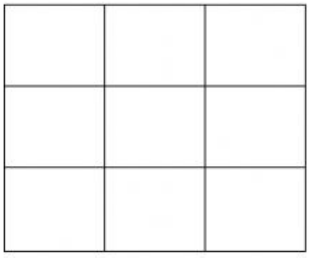
   **b) phenotype probabilities:**



2. If the **mother is heterozygous**, and the **father is heterozygous**.

   **a) genotype probabilities:**

   **b) phenotype probabilities:**



3. If the **mother is heterozygous**, and the **father is homozygous dominant**.

   **a) genotype probabilities:**

   **b) phenotype probabilities:**

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

4. If the **mother is homozygous recessive**, and the **father is heterozygous**.

   **a) genotype probabilities:**

   **b) phenotype probabilities:**

**Word Problems using Monohybrid Crosses**

1. In pea plants, yellow seed color is dominant to green seed color. If a heterozygous pea plant is crossed with a plant that is homozygous recessive for seed color, what is the probability that the offspring will have green seeds?

2. In fruit flies normal wings (W) is dominant over vestigial wings (w). The results of a cross, of two fruit flies, give the following results:
Normal wing 793
Vestigial wing 811

5. Red eyes (R) in fruit flies are dominant over white eyes (r). Using Punnett squares, find the possible eye colors for each of the following crosses.
A. Rr x rr

B. rr x RR

C. Rr x Rr