

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

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

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

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

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

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

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

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

Part II: Ready for practice more Punnett Squares?

If you are experimenting with flies, where red eyes are dominant over white eyes. (Use the letter "R"). Make the following crosses:

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

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

2) If the **mother has white eyes**, and the **father is heterozygous**.

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

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

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

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

a) Write the genotype probabilities.

b) Write the phenotype probabilities.

- 2) Cross **pink heterozygous** roses with **pink heterozygous** roses.
 - a) Write the genotype probabilities.
 - b) Write the phenotype probabilities.
- 3) Cross **white** roses with **pink** roses.
 - a) Write the genotype probabilities.
 - b) Write the phenotype probabilities.
- 4) Cross **Red** roses with **Pink** roses.
 - a) Write the genotype probabilities.
 - b) Write the phenotype probabilities.

Part IV: Now for more practice using traits from people.

Now look lets look at people, using noses. Large noses and small noses are co- dominant. (Use the letter “N”). Make the following crosses:

- 1) Mix **two large nose** parents together.
 - a) Write the genotype probabilities.
 - b) Write the phenotype probabilities.
- 2) Mix two **medium nose** parents together.
 - a) Write the genotype probabilities.
 - b) Write the phenotype probabilities.
- 3) Mix a **medium nose** mom with a **large nose** dad together.
 - a) Write the genotype probabilities.
 - b) Write the phenotype probabilities.
- 4) Mix a **medium nose** mom with a **small nose** dad together.
 - a) Write the genotype probabilities.
 - b) Write the phenotype probabilities.