

Name _____

Practice: Incomplete Dominance and Codominance (Non-Mendelian Genetics)

1. Explain the difference between incomplete dominance and codominance

2. In some chickens, the gene for feather color is controlled by codominance. The allele for black feathers is B and white feathers is W. The heterogenous genotype is known as erminette. Erminette chickens will look "spotted".

What is the genotype for black chickens? _____

What is the genotype for white chickens? _____

What is the genotype for erminette chickens? _____

3. A black chicken and a white chicken are crossed. What is the probability of:

White chickens _____%

Black chickens _____%

Erminette chickens _____%

4. If two erminette chickens are crossed, what is the probability of:

White chickens _____%

Black chickens _____%

Erminette chickens _____%

5. In snapdragons, flower color is controlled by incomplete dominance. The two alleles are red (R) and white (W). The heterogenous genotype is expressed as pink.

What is the phenotype of a plant with genotype RR? _____

What is the phenotype of a plant with genotype WW? _____

What is the phenotype of a plant with genotype RW? _____

6. A pink flowered plant is crossed with a white flowered plant. What is the probability of having:

Red flowers _____%

White flowers _____%

Pink flowers _____%

7. Two pink flowered plants are crossed. What is the probability of having:

Red flowers _____%

White flowers _____%

Pink flowers _____%

8. What cross will create the most pink plants?

Show a Punnett square that proves your answer.