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.