Name: _____ Period: ___ Date: _____

Worksheet #3 – Genetics Practice Problem (incomplete dominance)

***Use keyed and labeled diagrams to show the following genetic crosses. These problems represent exceptions to Mendel's laws of heredity because they deal with situations where neither gene is dominant to the other.***

1. If a black Andalusian fowl is crossed with a white Andalusian fowl, all the offspring come out blue (really a combination of black and white feathers)
   **Cross: White Andalusian hen X Blue Andalusian rooster**

2. In radishes, we find some radishes with long roots and some with round roots. The offspring of a cross between a pure round rooted radish and a pure long rooted radish show all oval shaped roots.
   **Cross: Oval Rooted X Oval Rooted**

3. A brown bird was crossed with a white one and all the offspring produced were tan. If these offspring were crossed and produced 20 new individuals, what colors and ratios would be expected?

4. In a certain species of mice there are 3 different phenotypes for fur color- black, white, and gray. When gray mice are mated, all three different phenotypes occur in the litters. Based on this information:
   A. Develop a key
   B. Show the results of mating two gray mice
   C. Show the results of mating a black mouse with a gray mouse.