Name: _____ Per: _____ Date: _____

# Non-Mendelian Genetics Practice Problems

**Incomplete Dominance**

1. A cross between a blue blahblah bird & a white blahblah bird produces offspring that are silver. The color of blahblah birds is determined by just two alleles.

   Blue Allele: _____ White Allele: _____

   a. What are the genotypes of the parent blahblah birds in the original cross?

   b. What is/are the genotype(s) of the silver offspring?

   c. What would be the phenotypic ratios of offspring produced by two silver blahblah birds?

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_____% Blue

_____% White

_____% Silver

**Codominance**

2. Red and white hair color in cows can exhibit codominance. This means some hairs are red colored and other hairs are white colored. This sometimes gives the look of a mixture, but if individual hairs are analyzed they are only red or white, not pink. When a cow has both red and white hairs its color is referred to as roan.

   White Allele: _____ Red Allele: _____

   a. If a roan colored cow is crossed with a white cow, what genotypic ratios are possible for the offspring?

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| | | |

_____% Ww

_____% WW

_____% ww

   b. For the same cross what phenotypes are possible for the offspring?

**Sex-linked**

3. Male pattern baldness is a recessive gene located on the X chromosome. If your mother is a carrier and your father does not have baldness (normal), determine your chances of developing male pattern baldness.

   First, write the genotypes of your parents: _____ x _____

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