

Name: \_\_\_\_\_ Class Period: \_\_\_\_\_

### **Monohybrid, Incomplete Dominance, & Codominance/Blood Typing Problems**

1.) Tongue rollers are dominant over not being able to roll the tongue (or non-rollers). What are the possible offspring from a man that is homozygous dominant for rolling his tongue, but his wife is a non-roller? Show all five steps.

1. Key:

3. Punnett Square:

2. Parents:

4. Genotype:

5. Phenotype:

2.) In humans, the ability to wiggle ears is a dominant trait. A man who can wiggle his ears married a woman who could not wiggle her ears. Their first child could not wiggle his ears. Show all five steps.

1. Key:

3. Punnett Square:

2. Parents:

4. Genotype:

5. Phenotype:

3.) In cowboy toys, brown hair is dominant to red hair. Woody, who has brown hair, has children with Jesse who has red hair. Woody's mom also had red hair. Show all five steps.

1. Key:

3. Punnett Square:

2. Parents:

4. Genotype:

5. Phenotype:

4.) A white cat and a black cat will produce a gray cat. Cross a white cat and a gray cat together to see what possible offspring combinations result. Show all 5 steps.

1. Key:

3. Punnett Square:

2. Parents:

4. Genotype:

5. Phenotype:

5.) When a blue bird and yellow bird mate, this produces a green bird. What possible offspring combinations result when a yellow bird and blue bird are crossed together? Show all 5 steps.

1. Key:

3. Punnett Square:

2. Parents:

4. Genotype:

5. Phenotype:

6.) When a blue bird and yellow bird mate, this produces a blue AND yellow bird. What possible offspring combinations result when a yellow bird and blue bird are crossed together? Show all 5 steps.

1. Key:

3. Punnett Square:

2. Parents:

4. Genotype:

5. Phenotype:

7.) A person with AB blood marries a person that is homozygous type B blood. What are the offspring combinations that could result? (You do **NOT** have to write out the key for this problem since the key is always the same).

2. Parents:

3. Punnett Square:

4. Genotype:

5. Phenotype

8.) A man who is type O blood marries a woman that is heterozygous type A blood. What are the offspring combinations that could result? (You do **NOT** have to write out the key for this problem since the key is always the same).

2. Parents:

3. Punnett Square:

4. Genotype:

5. Phenotype:

9.) In humans, six toes are dominant to five toes. Cross a heterozygous six-toed person with a five-toed person. Show all 5 steps.

1. Key:

3. Punnett Square:

2. Parents:

4. Genotype:

5. Phenotype:

10.) Cross two parents that both have type AB blood together. (You do **NOT** have to write out the key for this problem since the key is always the same).

2. Parents:

3. Punnett Square:

4. Genotype:

5. Phenotype: