Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_

**Independent Practice: Punnett Squares**

Define ***homozygous*** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Define ***heterozygous*** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circle the following genotype(s) that are **homozygous**: **BB Bb bb**

Circle the following genotype(s) that are **heterozygous**: **BB Bb bb**

**Use the information above to answer the following**

**questions and to complete the table below.**



1. What is the genotype of an animal that is

homozygous dominant for tail length? \_\_\_\_\_

What would this animal’s phenotype be?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What is the genotype of an animal that is

homozygous recessive for ear size? \_\_\_\_\_

What would this animal’s phenotype be?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. What is the genotype of an animal that is homozygous for large ears? \_\_\_\_\_

What would this animal’s phenotype be? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

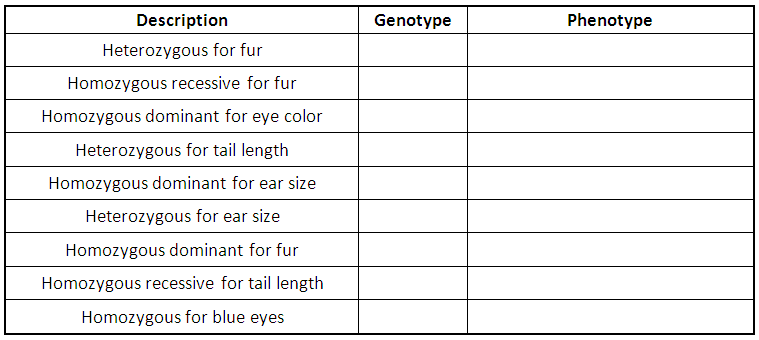
4. What is the genotype of an animal that is heterozygous for tail length? \_\_\_\_\_

What would this animal’s phenotype be? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. What is the genotype of an animal that is heterozygous for eye color? \_\_\_\_\_

What would this animal’s phenotype be? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Complete the table below for the rest of these genotype/phenotype combinations.**



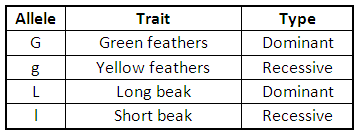
**Complete the following Punnett squares and answer the questions go with each pair.**

**Use the table of information below to answer questions 1-4.**

1. **Gg (**♂**) x Gg (**♀**)**

What is the ratio of green feathers to yellow feathers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



4. **Ll (**♂**) x Ll (**♀**)**

What percentage of offspring

will have long beaks?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. **GG (**♂**) x Gg (**♀**)**

What percentage of offspring will be

homozygous recessive?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. **A male which has a short beak is crossed with a female that is heterozygous for beak length.** What percentage of offspring will have short

beaks?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. **pp (**♂**) x Pp (**♀**)**

What percentage of offspring

will have white flowers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Use this information for questions 5-9 on this page.**

5. **Ss (**♂**) x ss (**♀**)**

What will be the ratio of smooth peas to wrinkled peas?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



7. **A plant which is short is crossed with a plant that is homozygous dominant for height.** What percentage of plants will be short?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. **A plant which is homozygous for purple flowers is crossed with a plant that has white flowers.** What percentage of offspring will

have purple flowers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. **Two plants which are heterozygous for pea shape are crossed with each other.** What percentage of plants will have

wrinkled peas?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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