

Name: _____ Date: _____ Hour: _____

DETERMINING GENETIC TRAITS QUIZ

Multiple Choice #1-10

1. A individual who has two of the SAME alleles is said to be
 - a. Homozygous
 - b. haploidzygous
 - c. heterozygous
 - d. diplodzygous

2. The idea that for any particular trait, the pair of alleles of each parent separate and only one allele from each parent passes to an offspring is Mendel's:
 - a. Law of Independent assortment
 - b. Principle of Hybridization
 - c. Law of Segregation
 - d. Law of Dominance

3. In pea plants, the dominant trait is TALL, and the recessive trait is SHORT. What is the GENOTYPE of a heterozygous individual ?
 - a. Ts
 - b. tt
 - c. TT
 - d. Tt

4. The PHYSICAL appearance resulting from a given gene combination is referred to as the
 - a. genotype
 - b. phenotype
 - c. alleleotype
 - d. stereotype

5. The two alleles for a trait are red and white and red is dominant to white. What is the genotype of a homozygous dominant individual?
 - a. RR
 - b. rr
 - c. Rw
 - d. Ww

6. Gregor Mendel was:
 - a. an English scientist who carried out research with Charles Darwin
 - b. was the first person to identify genetic diseases
 - c. an Austrian monk who carried out genetics research using pea plants
 - d. conducted research on monkey

7. When the genotype consists of a dominant and a recessive allele, the phenotype will be like _____ allele.
- the dominant
 - the recessive
 - neither
8. The idea that different pairs of alleles are passed to offspring independently is Mendel's principle of:
- unit inheritance
 - law of segregation
 - law of independent assortment
9. The passing of traits from parents to offspring is called?
- Heredity
 - Traits
 - Genetics
 - Generations
10. A plant that always produces offspring with the same form of a traits as the parent is known as?
- Pure plant/purebred
 - Hybrid
 - Homozygous
 - Heterozygous

Short Answer: Questions 11-24

For questions 11-19. Decide whether the following word or phrases are **(P) phenotypes** or **(G) genotypes**.

- | | | |
|-------------------|----------------------|------------------------|
| 11. _____ Green | 12. _____ Homozygous | 13. _____ Round |
| 14. _____ BB | 15. _____ Ff | 16. _____ mm |
| 17. _____ Striped | 18. _____ Short | 19. _____ Heterozygous |

For questions 20-22. Decide how to describe the following alleles: Use the words **homozygous**, **heterozygous**, **dominant**, and **recessive** when necessary.

20. KK _____
21. Ee _____
22. tt _____

