

Genetics

Name:

Genotypes and Phenotypes

Period:

Use Chapter 6, Section 2 of your textbook to answer the questions below.

Section 2: Traits and Inheritance A Great Idea (p.180)

1. Through his experiments, Mendel figured out that there must be _____ sets of instructions for each characteristic.
2. Instructions for both _____ and _____ traits were carried by Mendel's first-generation plants.
3. Instructions for inherited traits are called _____.
- _____ 4. How many versions of genes for each characteristic do offspring get?
 - a. one version from each parent
 - b. two versions from one parent
 - c. one version from one parent
 - d. two versions from each parent
5. The different versions of a gene are called _____.
- _____ 6. What type of allele is shown as capital letters?
 - a. small alleles
 - b. dominant alleles
 - c. recessive alleles
 - d. large alleles
- _____ 7. What type of allele is shown as lowercase letters?
 - a. small alleles
 - b. dominant alleles
 - c. recessive alleles
 - d. large alleles
8. The recessive trait shows up when the organism has _____ copies of the recessive allele.

Phenotype (p.180)

9. An organism's appearance (what it looks like) is called its _____.
10. Look at Figure 1. The phenotypes of white flowers and purple flowers describe the _____ of flower color.



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Genotype (p.181)

11. How many dominant alleles are needed before the dominant trait is seen in the phenotype? _____

Match the correct description with the correct term. Write the letter in the space provided.

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|--|-----------------|
| _____ 12. formed by both inherited alleles together | a. homozygous |
| _____ 13. a plant with two dominant or two recessive alleles | b. heterozygous |
| _____ 14. a plant with one dominant and one recessive allele | c. genotype |