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# **GENETICS**

## **Non-Mendelian Inheritance**

Based on: Non-Mendelian Inheritance: Incomplete dominance & Codominance

I. Non-Mendelian vs. Mendelian Inheritance: identify what is being described in each number. Write the letter of the correct answer on the blank:

## A. Complete Dominance

- C. Codominance
- **B.** Incomplete Dominance
- D. Incomplete Dominance & Codominance
- 1. A form of dominance characterized by the manifestation of a third phenotype, usually intermediate between that of the two parents.
  - 2. F2 generation in a ration of 3:1, where for every three offspring that produced wrinkled seeds, there is one that produced smooth seeds
  - 3. An example is a cross between a carnation plant producing red flowers and another carnation plant producing white flowers. The F1 offspring grew and soon produced pink flowers.
- 4. One of the two alleles is fully expressed.
- 5. The allele is not fully expressed in the heterozygote.
- \_\_\_\_ 6. The offspring displays the phenotypic traits of both parents simultaneously.
- 7. The resulting pattern in the filial generation does not conform to the Mendelian inheritance.
  - 8. An example is blood type AB where both alleles *IA* and *IB* are fully expressed.
  - \_\_\_\_\_ 9. Only one of the two parental phenotypes is expressed in the hybrid progeny.
  - 10.It assumes that one of the two alleles was dominant to the other.

## II. Complete the Venn diagram

### **INCOMPLETE DOMINANCE**

#### **CODOMINANCE**

