

**Chapter 11 Introduction to Genetics**

**Chapter Vocabulary Review**

**Matching** *On the lines provided, write the letter of the definition of each term.*

- |                         |   |
|-------------------------|---|
| _____ 1. genetics       | a. likelihood that something will happen                      |
| _____ 2. trait          | b. process of reduction division                              |
| _____ 3. hybrid         | c. specific characteristic                                    |
| _____ 4. gene           | d. offspring of crosses between parents with different traits |
| _____ 5. allele         | e. containing a single set of chromosomes                     |
| _____ 6. gamete         | f. sex cell   |
| _____ 7. probability    | g. factor that determines traits                              |
| _____ 8. Punnett square | h. diagram showing possible gene combinations                 |
| _____ 9. haploid        | i. the scientific study of heredity                           |
| _____ 10. meiosis       | j. form of a gene   |

**Completion** *On the lines provided, complete the following sentences:*

11. Organisms that self-pollinate, producing offspring identical to themselves, are \_\_\_\_\_.
12. Although organisms with the same physical characteristics have the same \_\_\_\_\_, they might have different \_\_\_\_\_, or genetic makeup.
13. According to the principle known as \_\_\_\_\_, genes that segregate independently do not influence each other's inheritance.
14. \_\_\_\_\_ and \_\_\_\_\_ are similar because the heterozygous phenotype is different from the homozygous dominant phenotype.
15. \_\_\_\_\_ results in the exchange of alleles and produces new combinations of alleles.

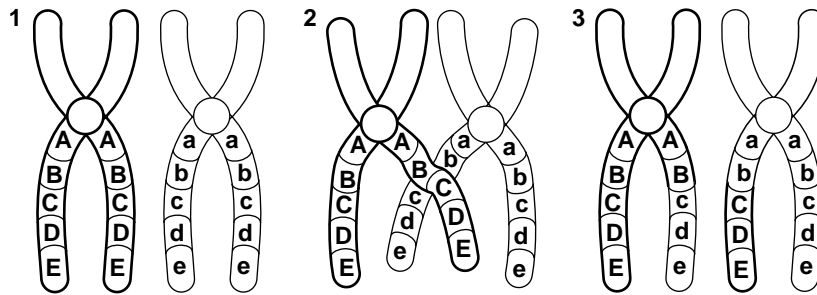
**Multiple Choice** *On the lines provided, write the letter of the answer that best completes the sentence or answers the question.*

- \_\_\_\_\_ 16. In what process do male and female reproductive cells join during sexual reproduction?
 

a. segregation	c. self-pollination
b. fertilization	d. cross-pollination
- \_\_\_\_\_ 17. The separation of alleles during gamete formation is called
 

a. segregation.	c. meiosis.
b. true-breeding.	d. crossing-over.

- \_\_\_\_\_ 18. Organisms that have identical alleles for a particular trait are
- a. heterozygous.                      c. diploid.  
b. polygenic.                          d. homozygous.
- \_\_\_\_\_ 19. An organism that has an allele for brown eyes and an allele for blue eyes is
- a. true-breeding.                      c. heterozygous.  
b. homologous.                        d. homozygous.
- \_\_\_\_\_ 20. Genes that have more than two alleles have
- a. crossing-over.                      c. multiple alleles.  
b. meiosis.                              d. independent assortment.
- \_\_\_\_\_ 21. Traits controlled by two or more genes are
- a. haploid.                              c. homologous.  
b. polygenic traits.                    d. multiple alleles.
- \_\_\_\_\_ 22. The diagram below illustrates which type of chromosomes that may cross over and exchange portions of their chromatids during meiosis?
- a. diploid                                c. haploid  
b. homozygous                        d. homologous



- \_\_\_\_\_ 23. What type of cell has two sets of chromosomes?
- a. diploid                                c. tetrad  
b. haploid                                d. gene
- \_\_\_\_\_ 24. There are four chromatids in a
- a. polygenic trait.                      c. gamete.  
b. tetrad.                                d. genotype.
- \_\_\_\_\_ 25. Which of the following shows the relative locations of each known gene in an organism?
- a. polygenic trait                      c. Punnett square  
b. gamete                                d. gene map