Nan	Name Class	Date
D	Directed Reading B continued	
	22. A relationship between two different nu as a fraction is a(n) a. ratio. b. multiplier. c. sum. d. divisor.	mbers that is often expressed
	23. Mendel's results showed that the ratio of traits in second-generation plants is about a. 4:1. b. 3:1. c. 1:4. d. 1:3.	ut
	24. How did Mendel believe his results in calculating to recessive traits could be explained?	ng the ratio of dominant traits
	25. If offspring receive two sets of instructions for the offspring's traits determined?	each characteristic, how are
	26. How long after his results were published in 18 recognized?	65 was Mendel's work widely

Skills Worksheet

Directed Reading B

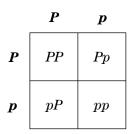
Section: Traits and Inheritance (pp. 180–187) A GREAT IDEA

- 1. One set of instructions for an inherited trait is a(n)
 - a. allele.
 - **b.** phenotype.
 - **c.** genotype.
 - **d.** gene.
- **2.** How many sets of the same gene for every characteristic do offspring receive?
 - **a.** one from one parent
 - **b.** one from each parent
 - **c.** two from one parent
 - **d.** two from each parent
- _____ **3.** One of the alternative forms of a gene that governs a characteristic is a(n)
 - **a.** allele.
 - **b.** phenotype.
 - c. genotype.
 - **d.** trait.
- **4.** Dominant alleles are shown with
 - **a.** capital letters.
 - **b.** lowercase letters.
 - **c.** boldface letters.
 - **d.** italic letters.
- **5.** Lowercase letters are used to show
 - **a.** dominant alleles.
 - **b.** recessive alleles.
 - **c.** dominant genes.
 - **d.** recessive genes.
 - **6.** An organism's appearance or other detectable characteristic is its
 - a. genotype.
 - **b.** phenotype.
 - c. allele.
 - **d.** trait.

Name		Class		Date
Directed Reading B continued	d			
7. The entire genetic regenes for one or more a. genotype. b. phenotype.	-		,	
 8. A plant with two do a. homologous. b. homozygous. c. heterologous. d. heterozygous. 	ominant	or two		leles is said to be
9. A plant with one doa. homologous.b. homozygous.c. heterologous.d. heterozygous.	ominant :	and on	e recessive :	allele is said to be
 10. For a particular croal a. possible phenoty b. possible genoty c. possible phenoty d. possible genoty The Punnett square below show (PP) and a true-breeding white	ypes of or pes of of ypes of pa pes of pa ws a cro	ffsprin fspring parents arents.	g. g. s. veen a true-l	breeding purple flower
questions 11 through 13.	p	р, о		act square to unsire:
P	Pp	Pp		
P	Pp	Pp		
11. What is the genotype for the	e offsprir	ng of th	is cross?	
12. Why do all offspring from the	nis cross	have th	ne same geno	otype?
13. What color will the flowers	of the of	fspring	of this cross	s be? Explain your answer.

Directed Reading B continued

The allele for purple flowers (P) is dominant, and the allele for white flowers (p) is recessive. The Punnett square below shows a self-pollination cross of a plant with the genotype Pp. Use the Punnett square to answer questions 14 through 17.



14. According to the Punnett square, what are the four possible genotypes for the offspring of this cross?

15. Of the four possible genotypes for the offspring of the cross shown by the Punnett square, which two are exactly the same?

16. What are the possible phenotypes for the offspring of this cross? Explain your answer.

17. What is the ratio of dominant to recessive traits for the offspring of this cross?

WHAT ARE THE CHANCES?

_____ **18.** The mathematical chance that something will happen is called a(n)

- **a.** ratio.
- **b.** possibility.
- c. probability.
- **d.** trait.

19. Probability is most often written as a(n)

- **a.** product or percentage.
- **b.** whole number or sum.
- **c.** whole number or equation.
- **d.** fraction or percentage.