Name ANSWER KEY Class _____ Date _____

Skills Worksheet

Vocabulary Review

In the space provided, write the letter of the description that best matches the term or phrase.

E 1. heredity
M 2. genetics
J 3. monohybrid cross
F 4. true-breeding
H 5. P generation
O 6. F_1 generation
K 7. F_2 generation
N 8. alleles
G 9. dominant
D 10. recessive
L 11. homozygous
A 12. heterozygous
P 13. genotype
I 14. phenotype
B 15. law of segregation
C 16. law of independent assortment

a. the alleles of a particular gene are different

b. the two alleles for a trait separate when gametes are formed

c. the alleles of different genes separate independently of one another during gamete formation

d. not expressed when the dominant form of the trait is present

e. passing of traits from parents to offspring

f. all the offspring display only one form of a particular trait

g. the expressed form of a trait

h. first two individuals crossed in a breeding experiment

i. physical appearance of a trait

j. a cross that considers one pair of contrasting traits

k. offspring of the F_1 generation

l. when the two alleles of a particular gene are the same

m. branch of biology that studies heredity

n. different versions of a gene

o. offspring of the P generation

p. set of alleles that an individual has

Name _____ Class _____ Date _____

Vocabulary Review *continued*

Write the correct term from the list below in the space next to its definition.

codominance	pedigree	Punnett square
incomplete dominance	polygenic trait	sex-linked trait
multiple alleles	probability	test cross

Punnett square **17.** diagram that predicts the outcomes of a genetic cross

test cross **18.** cross of a homozygous recessive individual with an individual with a dominant phenotype of unknown genotype

probability **19.** the likelihood that a specific event will occur

pedigree **20.** a family history that shows how a trait is inherited

sex-linked trait **21.** trait whose allele is located on the X chromosome

polygenic trait **22.** when several genes influence a trait

incomplete dominance **23.** when an individual displays a trait that is intermediate between the two parents

codominance **24.** two dominant alleles are expressed at the same time

multiple alleles **25.** genes with three or more alleles

Name _____ Class _____ Date _____

Section: Studying Heredity

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

D 1. In a pedigree, two normal parents produce a child with a genetic disorder. Based on this information, you know that the genetic disorder is caused by a
   a. sex-linked allele.
   b. dominant allele.
   c. codominant allele.
   d. recessive allele.

C 2. The results of a test cross are some purple-flowering plants and some white-flowering plants. What is the genotype of the original purple-flowering pea plant?
   a. *PP*
   b. *pp*
   c. *Pp*
   d. There is not enough information.

A 3. In a pedigree, a carrier would be represented as a(n)
   a. normal individual.
   b. individual who has a genetic disorder.
   c. square.
   d. circle.

B 4. Which of the following is NOT true of most sex-linked traits?
   a. located on the X chromosome
   b. located on autosomes
   c. usually recessive
   d. usually seen in males

In the space provided, write the letter of the description that best matches the term or phrase.

F 5. homozygous recessive

B 6. 1 *WW* : 2 *Ww* : 1 *ww*

E 7. Punnett square

D 8. test cross

C 9. probability

A 10. all *Ww* offspring

   a. result of a cross between the parents *WW* and *ww*
   b. result from a cross between the parents *Ww* and *Ww*
   c. likelihood that an event will occur
   d. used to determine the genotype of a purple-flowering pea plant
   e. diagram used to predict the outcome of a genetic cross
   f. good choice of genotype for a test cross to find out the genotype of an individual who might be *Ww* or *WW*

Name _____ Class _____ Date _____

Section: Complex Patterns of Heredity

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

A 1. When several genes influence a trait, the trait is said to be
   a. polygenic.
   b. incompletely dominant.
   c. codominant.
   d. completely dominant.

B 2. Which of the following patterns of heredity can result in an intermediate trait, such as pink snapdragon flowers?
   a. multiple alleles
   b. incomplete dominance
   c. codominance
   d. sex-linked alleles

D 3. Which of the following is responsible for the color of hydrangea flowers, which depends on the pH of the soil in which they are grown?
   a. multiple alleles
   b. incomplete dominance
   c. codominance
   d. environmental conditions

C 4. Which of the following genetic disorders is caused by a sex-linked allele?
   a. sickle cell anemia
   b. hypercholesterolemia
   c. hemophilia A
   d. Tay-Sachs disease

In the space provided, write the letter of the description that best matches the term or phrase.

B 5. sickle cell anemia
C 6. Huntington's disease
F 7. gene therapy
E 8. genetic counseling
D 9. mutation
A 10. multiple alleles

a. determine the different ABO blood types
b. caused by a mutated allele that results in a defective hemoglobin protein
c. caused by a dominant allele located on an autosome
d. changes in DNA that can cause genetic disorders
e. informing people about genetic problems they or their offspring might have
f. replacing defective genes with copies of healthy genes, using gene technology