

Name: _____

Date: _____

Quiz name: Chapter 14 Review

1. Which of these is a testcross?

- ☐ A $A? \times aa$
- ☐ B $A? \times AA$
- ☐ C $A? \times Aa$
- ☐ D $aa \times aa$

2. That each gamete contains a single allele for a particular gene is an illustration of.

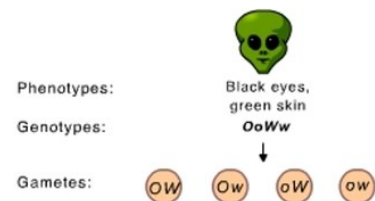
- ☐ A Mendel's law of segregation only.
- ☐ B Darwin's theory of natural selection.
- ☐ C Mendel's law of independent assortment only.
- ☐ D both Mendel's law of segregation and Mendel's law of independent assortment.

3. In a two-factor cross, a phenotypic ratio of 9:3:3:1 in the offspring of a cross indicates that.

- ☐ A both parents are homozygous dominant.
- ☐ B both parents are heterozygous for both genes.
- ☐ C one parent is homozygous dominant and one parent is heterozygous.
- ☐ D one parent is heterozygous and one parent is homozygous recessive.

4. The observed distribution of alleles into gametes is an illustration of.

- ☐ A Mendel's law of dominance only.
- ☐ B Mendel's law of segregation only.
- ☐ C Mendel's law of independent assortment only.
- ☐ D Mendel's laws of segregation and independent assortment.



Black eyes (O) are dominant to orange eyes (o), and green skin (W) is dominant to white skin (w).

A $OoWw \times ooww$ cross yields a phenotypic ratio of approximately 5 black eyes, green skin : 5 orange eyes, white skin : 1 black eyes, white skin : 1 orange eyes, green skin. Which of the following best explains these results?

- ☐ A Mendel's law of segregation is being violated.
- ☐ B Mendel's law of independent assortment is being violated.
- ☐ C Mendel's laws of segregation and independent assortment are being violated.
- ☐ D The heterozygous individual is male, and the homozygous individual is female.

6. Andalusian chickens with the genotype $C^B C^B$ are black, those with the genotype $C^W C^W$ are white, and those with the genotype $C^B C^W$ are gray. What is the relationship between the C^B and C^W alleles?

- ☐ A C^B is dominant to C^W .
- ☐ B C^W is dominant to C^B .
- ☐ C C^B and C^W are codominant.
- ☐ D The relationship between the alleles is one of incomplete dominance.

7. A woman with type AB blood marries a man with type O. What is the probability that their first child will have either of the parents' blood types?.

(A) 0%
 (B) 25%
 (C) 50%
 (D) 75%

8. Coat color in Labrador retrievers is an example of epistasis, in which a single trait is influenced by two separate genes. What is this dog's genotype? B=black melanin, b=brown melanin E=full deposition, e=reduced deposition.

(A) BbEE
 (B) Bbee
 (C) bbEe
 (D) bbee



9. Freckles (F) and a widow's peak (W) are dominant human traits. John and Sarah have both, but their son Casey has neither. What are John and Sarah's genotypes?.

(A) FFff and WWww
 (B) FfWw and FfWW
 (C) FfWw and FfWw
 (D) FFWW and ffww

10. The results of the following cross indicate that the.

(A) two genes are linked.
 (B) MendAlien species is polyploid.
 (C) two genes assort independently.
 (D) absence of a tooth is dominant to vertical eyes.

