

Name _____

EOR 11 (chapter 9B)

DIRECTIONS: Read sections **9.11 → 9.23 (SKIP 9.17 → 9.19)** in the textbook and answer the following questions:

1) Define **Incomplete Dominance** patterns of inheritance and then explain an **example** of a trait determined by Incomplete Dominance in flowers and humans with both **sentences** and **diagrams**. (see Figure 9.11A & 9.11B)

Incomplete Dominance =

An Example of ID in <u>flowers</u> is:	Diagram:
An Example of ID in <u>humans</u> is:	Diagram

2) Human blood type is a trait that is determined by **multiple alleles**. (i.e., The human “gene pool” for blood types contains more than 2 possible alleles that any given human could inherit.) List the **3** different alleles that determine human blood types :

3 Blood Type ALLELES			
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3) Summarize in the TABLE below all the different human blood type **genotypes** and **phenotypes**.

Genotypes:				
Phenotypes:				

4) If a man with **B** blood has a child with a woman with **AB** blood, what is the chance the child will have O blood... Explain?

5) Would you rather be homozygous or heterozygous for the sickle-cell mutation Explain WHY?

6) Has the tropical disease malaria helped the sickle-cell mutation become more or less common in the gene pool for persons living in Africa explain WHY?


7) Explain why two identical twins with the exact same skin tone **genotype** might have different skin tone **phenotypes**?

8) Define a **Sex-linked** trait and explain the symptoms for **3** different human sex-linked disorders.

Sex-linked trait is:

Sex-linked disorder	Symptoms
1	
2	
3	

Directions: Review the assigned heredity reading by indicating whether each Heredity statement below is **T/F** and the **textbook page** where the answer can be found.

	 Heredity Statements (Chapter 9B)	After reading T/F	Textbook page
1	The gender of a baby chicken is determined by which sex chromosome the hen puts in the egg.		
2	Men have a higher rate of Sickle-cell Anemia than women		
3	It is NOT possible for a woman to be colorblind		
4	Persons <u>heterozygous</u> for hypercholesterolemia have about the SAME levels of blood cholesterol as persons who are <u>homozygous</u> for hypercholesterolemia		
5	It is NOT possible for a man to be a healthy hemophilia carrier		
6	When pink snapdragon plants are crossed with pink, the next generation will have red, white, and pink flowers in equal 1/3 ratios.		
7	It is safe to give a transfusion of O blood to a person with B blood.		
8	After a malaria infection, African American men are immune from inheriting the Sickle-cell mutation.		
9	Sickle-cell Anemia can be cured with a series of blood transfusions		
10	If a man has Duchenne Muscular Dystrophy (DMD), he CANNOT give it to his sons.		