Name _____

Codominance and Multiple Alleles

There are four blood types: A, B, AB, and O. However there are three alleles that control blood types: I^A, I^B, and i. Alleles I^A and I^B are codominant, and the allele "i" is recessive.

1. What are the two genotypes for type A blood?

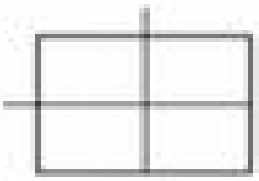
   What are the two genotypes for type B blood?

   What is the one genotype for type AB blood?

   What is the one genotype for type O blood?

2. A man has type A blood and his wife has type B blood. A physician types the blood of their four children and finds that each of the children has a different blood type. What are the genotypes of the parents? How would you explain that all four blood types could be represented by these four children?

3. A couple preparing for marriage have their blood typed along with the other blood tests. Both are AB. They ask what blood types their children may have. What would you tell them?



Genotypes	Phenotypes

4. A woman sues a man for the support of her child. She has type A blood, her child has type O, and the man has type B. Could the man be the father? Explain.

5. A young woman in Hollywood sued a famous movie actor for support of her child, claiming that he was the father of her child. By typing the blood of the three persons involved, the following results were obtained. The child is type B, the Mother is type A, the Actor is type O. Could the actor have been the father? Explain.