

- 1.) In humans, there are four types of blood; type A, type B, type AB, and type O. The alleles A and B are codominant to each other and the O allele is recessive to both A and B alleles. So a person with the genotype AA or AO will have A type of blood.
- What possible genotypes will produce B type of blood? _____
 - What is the only genotype that will produce O type of blood? _____
 - What is the only genotype that will produce AB type of blood? _____
- 2.) A man with blood type O marries a woman with blood type AB. What are the possible blood types of their children?
- 3.) In the 1950's, a young woman sued film star/director Charlie Chaplin for parental support of her illegitimate child. Charlie Chaplin's blood type was already on record as type AB. The mother of the child had type A and her son had type O blood. The judge ruled in favor of the mother and ordered Charlie Chaplin to pay child support costs of the child. Was the judge correct in his decision based on blood typing evidence? Explain why or why not. Complete a Punnett square to support your answer.
- 4.) Suppose a newborn baby was accidentally mixed up in the hospital. In an effort to determine the parents of the baby, the blood types of the baby and two sets of parents were determined. Baby 1 had type O Mrs. Brown had type B Mr. Brown had type AB. Mrs. Smith had type B Mr. Smith had type B. To which parents does baby #1 belong? Why? Complete a Punnett square to support your answer.