Name: _____
Date: _____
Period: _____

Pedigree for Sickle Cell Anemia

Sickle cell is a result of a single transcription error on the β-globin gene on Chromosome #11. It is a recessive genetic disorder which results in death of homozygous recessive individuals usually in their mid-forties. Heterozygous individuals have a greater immunity to malaria than homozygous dominant individuals. This peculiarity has keep the mutation from becoming extinct.

Below is a pedigree for 3 generations of the family. The shaded portions represent the presence of the recessive allele. Some individual's genotypes have been marked with "?" Use punnett squares to determine the correct genotype for the identified individuals. Color the squares and circles correctly.