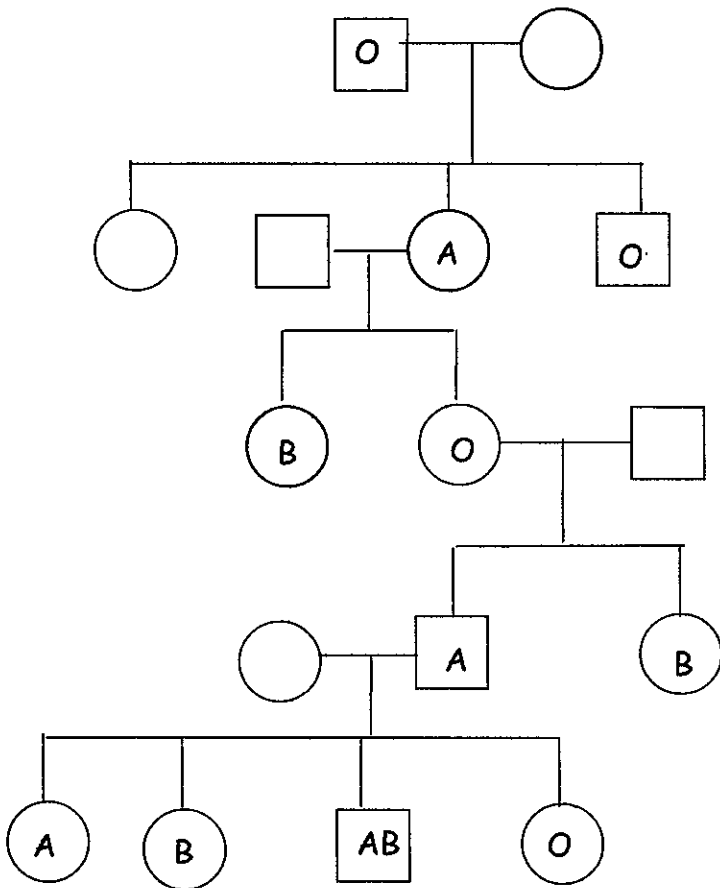


Scholars Biology / Biology

The pedigree below shows the blood types of some individuals. List all of the possible genotypes for each individual in the pedigree.



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Name _____

Genetics: Multiple Allele Traits

Blood Type is controlled by 3 alleles: A, B, O. A & B are codominant, O is recessive.

1. a) What are the two genotypes possible for a person who has A blood? _____
b) What genotype does a person with AB blood have? _____
c) What genotype does a person with O blood have? _____
d) What are the two genotypes possible for a person who has B blood? _____

2. A man with type AB blood is married to a woman also with type AB blood. What blood types will their children have and in what proportion?

3. A man has type B blood (genotype BB) is married to a woman with type O blood. What blood type will all their children have? _____ What is the genotype of the children? _____

4. A woman with type A blood (genotype AO) is married to a type B person (genotype BO). What proportion of their children will have: A blood? _____ B blood? _____ O blood _____

5. A woman with type A blood is claiming that a man with type AB blood is the father of her child who is also type AB. Could this man be the father of the child? _____ Show the possible crosses; remember that the woman can have AA or AO genotypes.

6. A man with type AB blood is married to a woman with type O blood. They have two natural children and one adopted child. Jane has type A blood, Bobby has type B blood, and Grace has type O blood. Which child was adopted?
