

1. Tom P. Son faces charges in a paternity suit brought by Mary H. Lamb. Tom is blood type AB, Ms. Lamb is blood type O. The child is blood type O. Could Tom be the father? Explain, using the appropriate Punnett's Square.
2. Two individuals of homozygous type A and homozygous type B marry and have offspring. Describe the genotypes of all of the offspring in the first generation. Show the appropriate Punnett's Square.
3. A child has a blood type of AB, and the mother has a blood type of A.
 - What are the possible genotypes of the father? Show the Punnett's Squares.
 - Could the father be type O? Explain!!

3. A man with AB blood is married to a woman with AB blood. What blood types will their children be and in what proportion?

4. A man who has type B blood (genotype: BB) is married to a woman with type O blood. What blood type will their children have?

5. A woman with type A blood (genotype: AO) is married to a type (genotype: BO). What blood types will their children have?

6. 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? Show the possible crosses; remember the woman can have AO or AA genotypes.

7 A man with type AB blood is married to a woman with type O blood. They have two natural children, and one adopted child. The children's blood types are: A, B, and O. Which child was adopted?

8. A person with type A blood (unknown genotype) marries a person with type O blood. What blood types are possible among their children. (Show 2 crosses)

9. Two people, both with AB blood have four children. What blood types should the children be?

10. A person with type B blood (genotype BO) has children with a type AB person. What blood types are possible among their children?

11 A person with type O blood is married to a person with type A blood (unknown genotype). They have 6 children, 3 of them have type A blood, three of them have type O blood. What is the genotype of the two parents?

12. A person has type B blood. What are ALL the possible blood types of his parents. Show the crosses to prove your answer.

13. A man of unknown genotype has type B blood, his wife has type A blood (also unknown genotype). List ALL the blood types possible for their children. (you may need to do multiple crosses to consider the different possible genotypes of the parents)

14 Two people with type O blood have three children. How many of those three children also have type O blood?

14 Why is a person with type O blood called a "universal donor"?

16. Why is a person with type AB blood called a "universal acceptor"?