

Name _____

Genetics: Blood Types

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 proportion of their children will have:

Show the cross:

A blood? _____

B blood? _____

O blood _____

AB blood _____

3. A man has type B blood (genotype BB) is married to a woman with type O blood. Show the cross:

What proportion of their children will have:

A blood? _____

B blood? _____

O blood _____

AB blood _____

4. A woman with type A blood (genotype AO) is married to a type B person (genotype BO). Show the cross

What proportion of their children will have:

A blood? _____

B blood? _____

O blood _____

AB 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 type **B**.

Show ALL the possible crosses; remember that the woman can have AA or AO genotypes.



Could this man be the father of the child? _____

Assuming that he is the father, what must the mother's genotype be? _____

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, Jordan has type B blood, and Marlin has type O blood.

Which child was adopted? _____

How do you know?

7. A woman is searching for her father and she has type O blood. She looks through records of men who could be her father. Which blood type can she eliminate from her search? (In other words, her dad CANNOT be what blood type.) Explain how you know this.