

Blood Type Practice Problems:

The genotypes for blood type are as follows:

Type A	blood	$I^A I^A$ or $I^A i$
Type B	blood	$I^B I^B$ or $I^B i$
Type AB	blood	$I^A I^B$
Type O	blood	ii

1. If a man with blood type O (**ii**) has a child with a woman with blood type AB (**$I^A I^B$**), what is the probability that they will have a child with blood type AB?

0%

	i	i
I^A	$I^A i$	$I^A i$
I^B	$I^B i$	$I^B i$

2. Is it possible for a man with blood type A and a woman with blood type B to have a child that is blood type O? Show how this is possible by making a punnett square.

Yes, if they are both heterozygous.

	I^A	i
I^B	$I^A I^B$	$I^B i$
i	$I^A i$	ii

3. A woman with blood type B is claiming that a particular man is the father of her child. The man in question has blood type A. The child has blood type B. Could the man be the father? Explain.

Yes, if the man is heterozygous for blood type A $I^A i$. See punnett square below

		I ^A	i
I ^B		I ^A I ^B	I ^B i
i		I ^A i	ii