Genetics/Blood Typing Worksheet

1) Could a man with type B blood and a woman with type AB produce a child with type O blood? Explain your answer & show your work below.

2) What if the mother is type O+ and the father is A-? What would the offspring's blood type be? The offspring could be:

3) If the mother of a child is blood type O+ and the child is A-, what blood type would the father be? Does the Rh factor of the child being negative mean that one of the parents has to be negative? Could two Rh- parents give birth to a Rh+ child?

Show your work.

4) I am trying to figure out what blood type the father of my son could have since my son and I are both type A+. Also, my brother is type O and my mom is A+.

The father could be:

5) My daughter is type A, my grandson is type B+; we do not know the types of the two gentlemen in question. My question is what are the types that the fathers would have to be in order for him to be a B+?

6) You are blood type O+ and you marry a person with blood type AB-. List the possible blood types in offspring.

7) A father has type O- blood and a mother has type AB- blood. List the possible blood types in offspring.

8) Suppose two newborn babies were accidentally mixed up in the hospital. In an effort to determine the parents of each baby, the blood types of the babies and the parents were determined.

* Baby 1/ type O Mrs. Brown/type B Mrs. Smith/type B
* Baby 2/Type A Mr. Brown/type AB Mr. Smith/type B

Baby 1 belongs to: Draw two Punnett Squares to prove your answer.

9) What genotypes must parents have in order to produce four different phenotypic blood types?

Sex-linked diseases

10) A man is a hemophiliac. A woman carries the allele for hemophilia.

* Describe the female offspring.
* Describe the male offspring.

11) A hemophiliac-carrier woman mates with a normal man.

* What percentage of the male offspring will have hemophilia?
* What percentage of the females will be carriers of hemophilia?