Blood Type Assignment:

Show the punnett square and phenotypic ratios for the following crosses:

1) Both the father and mother have type O blood.

_________ x __________

Phenotypic Ratio:

2) The father is type A homozygous, the mother is type B homozygous.

_________ x __________

Phenotypic Ratio:

3) The father is type A heterozygous, the mother is type B heterozygous.

_________ x __________

Phenotypic Ratio:

4) The father has type O blood, the mother has type AB blood.

_________ x __________

Phenotypic Ratio:

5) Both the father and mother have type AB blood.
6) Alice has type A blood and her husband Mark has type B blood. Their first child, Amanda, has type O blood. Their second child, Alex, has type AB blood.

What is Alice’s genotype? _____________

What is Mark’s genotype? _____________

Show how you found the answer by completing the Punnett square(s) below:

7) Candace has type B blood. Her husband Dan has type AB blood. Is it possible for Candace and Dan to have a child that has O blood? ___________ Explain why or why not (use a Punnett square to help).

8) Ralph has type B blood and his wife Rachel has type A blood. They are very shocked to hear that their baby has type O blood, and think that a switch might have been made at the hospital. Can this baby be theirs? _______________ Explain why or why not (use a Punnett square to help).