

Name \_\_\_\_\_

Date \_\_\_\_\_

## Biology Classwork: **ABO Genetics Problem**

The chart below lists the blood phenotypes of 8 individuals. Use the information in the chart to solve the genetics problems that follow.

<b>Females</b>	<b>Blood Type</b>	<b>Males</b>	<b>Blood Type</b>
Anne	Type O	Charlie	Type A
Wendy	Type B	Scott	Type AB
Susan	Type AB	Larry	Type O
Patricia	Type A	Keith	Type B

*Show all solutions in the space provided.*

1. Larry has a son with type B blood. Which of the females listed above could be this child's biological mother?
2. Anne is pregnant with Scott's child. What is the chance that the baby will have type A blood?
3. Because her daughter has type B blood, Patricia insists that Keith is the father. Keith claims that Scott is the father of Patricia's baby girl. Is it possible that Scott is the baby's father?
4. Keith and Wendy have a 4-year old with type O blood. How is this possible?

5. Susan is the mother of Charlie's first two children. The oldest, Dawn, has type AB blood while her sister, Kate, has type B blood. Charlie is now expecting a baby with Anne. What is the chance that this child will have type O blood?
  
  
  
  
  
  
  
  
  
  
6. Erin, Patricia and Larry's daughter, is married to Jeff. Jeff was in a serious car accident and needs a transfusion but Erin is told that Jeff cannot be given her blood. Based on this information, provide Erin's blood genotype and blood phenotype.
  
  
  
  
  
  
  
  
  
  
7. Scott and Susan's son, Paul, is willing to donate blood to a young girl with leukemia. If the recipient has type O blood, will Paul be able to donate to her?