Blood Type Punnett Squares — Worksheet

Name _____

Date _____

Human blood types are determined by genes that follow the **CODOMINANCE** pattern of inheritance. There are two dominant alleles (A & B) and one recessive allele (O).

Blood Type	Genotype	Can donate blood to:	Can receive blood from:
O	ii (OO)	A,B,AB and O (universal donor)	O
AB	I^AI^B	AB	A,B,AB and O (universal receiver)
A	I^AI^A or I^Ai (I^AO)	AB, A	O,A
B	I^BI^B or I^Bi (I^BO)	AB,B	O,B

1. Write the genotype for each person based on the description:

   a. Homozygous for the "B" allele_____

   b. Heterozygous for the "A" allele_____

   c. Type O_____

   d. Type "A" and had a type "O" parent_____

   e. Type "AB"_____

   f. Blood can be donated to anybody_____

   g.Can only get blood from a type "O" donor_____

2. Pretend that James is homozygous for the type B allele, and Sarah is type "O."
   What are all the possible blood types of their baby? *(Do the punnett square)*

2. Complete the punnett square showing all the possible blood types for the offspring produced by a type "O" mother and an a Type "AB" father. **What are percentages of each offspring?**
