



A
B
O
AB

Monohybrid Cross Worksheet 5: Multiple Alleles

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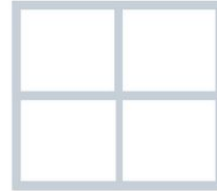
Name _____

Date _____

Comprehension problems

1. If a mother and father with heterozygous type A and heterozygous type B blood, respectively, have children, determine the following:

- a. P1 genotypes: _____
- b. F1 genotypes: _____
- c. F1 phenotypes: _____
- d. Proportion of F1 expected to have type O blood: _____
- e. Proportion of F1 expected to have type A blood: _____
- f. Proportion of F1 expected to be II : _____



2. A mother and father with type A and type B blood, respectively, find out that their biological daughter has type O blood. Explain whether or not this is possible.

3. A father with type B blood finds out his daughter has type A blood, even though his wife is type B, as well. Is he likely the father? Explain why or why not.

4. Sandy finds out that she has type A blood type. She knows her mother has type B blood type, but is uncertain about her father's blood type. What are the possible blood type genotypes of Sandy's father?

5. Peter has type O blood. What are the possible genotypes of his parents? _____

6. Ellie has heterozygous type B blood. Her mother and father, respectively, have type O and heterozygous blood type B. What are the possible blood genotype and phenotype combinations of her maternal and paternal grandparents?

Genotype(s):
 Maternal: _____
 Paternal: _____
 Phenotype(s):
 Maternal: _____
 Paternal: _____

7. If Michael has type O blood, can he receive type A, type B, type AB and/or type O blood? Can he donate his blood to type A, type B, type AB, and/or type O individuals? _____

