

Name _____

Gym Sock Genetics

We will be acting out this lab in class. You should pay attention to the lab and answer these questions as they arise in our discussion. Do not worry if you cannot understand all the new vocabulary right away: things will (hopefully) become clearer as we do the lab.

- A. 1. How many socks are given to a child by one of the parents? _____
2. How is the color of the sock given to the child determined? _____

- B. 3. What color is dominant? _____ Why? _____
4. What color is recessive? _____ Why? _____
- C. 5. What **genotypes** make red? _____
6. What **genotypes** make white? _____
- D. 7. List the genotype of a **heterozygous** individual: _____
8. List the **two possible genotypes** of a homozygous individual. _____
- E. 9. Which of the genotypes in answer #8 is the **homozygous dominant** one? _____
10. Which of the genotypes in answer #8 is the **homozygous recessive** one? _____
11. What is the only possible genotype of the children from a cross of a **homozygous dominant parent** with a **homozygous recessive parent**? _____
- F. 12. Draw a Punnett square for the cross described in question #11.

- G. 13. What does a pair of socks represent in our model? _____
14. What does each of the two different colors represent? _____