Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_

\*\*In fruit flies, eye color is a sex linked trait. Red is dominant to white.\*\*

1. What are the sexes and eye colors of flies with the following genotypes?

X RX r \_ X R Y \_ \_ X rX r\_ \_

X RX R\_ \_ X rY \_ \_\_

2. What are the genotypes of these flies:

white eyed, male \_\_\_ \_\_\_\_\_ red eyed female (heterozygous) \_ \_\_

white eyed, female \_\_\_ \_\_\_ red eyed, male \_\_ \_\_\_\_

3. Show the cross of a white eyed female X rX rwith a red-eyed male XR Y .

4. Show a cross between a pure red eyed female and a white eyed male.  
What are the genotypes of the parents:

\_\_ \_\_\_\_ and \_\_\_\_\_ \_\_\_\_

How many are:

white eyed, male \_\_\_\_  
white eyed, female \_\_  
red eyed, male \_  
red eyed, female \_\_\_\_

5. Show the cross of a red eyed female (heterozygous) and a red eyed male.

What are the genotypes of the parents?

\_\_\_ \_\_\_ & \_\_\_\_\_\_ \_\_\_\_\_

How many are:

white eyed, male \_\_  
white eyed, female \_\_  
red eyed, male \_\_\_\_  
red eyed, female \_

Math: What if in the above cross, 100 males were produced and 200 females. How many total red-eyed flies would there be?