Monohybrid Practice Problems

1. In fruit flies, normal wings (W) is dominant over vestigial wings (w). The results of a cross of two flies gives the following offspring:

Normal Wing	793
Vestigial Wing	811

What was the genotype of the parents of these F1 offspring? Use a Punnett square to support your answer.

2. In fruit flies the eye color is controlled by genes. Red is dominant to white. Find the possible eye colors of the F1 generation for each of the following crosses. Use the five-step format given in class to solve each problem. (the first one is set up for you)

A) Rr x rr

1) Symbols:

2) genotypes of parents

3) possible gametes

4) fill out the square:

5) Phenotypic and genotypic ratios:

B) rr x RR

C) Rr x Rr

3. Circle the crosses that are possible (i.e. are written correctly) from the list below, and then complete them below using Punnett squares, solved using the five-step format given in class.

A. Ww x RR

B. WW x Ww

C. RW x rw

D. Rr x RR

E. Ww x Ww

F. WR x rr

G. Wwr x Rrw