

Name: _____

1.) You've decided to mate a white eye fly with an apterous fly. Hmmmmm, females in the F₂s only show wildtype or apterous. Do your cross (no reciprocal needed). After you do your cross go through and label where Mendel's postulates can be seen at work in your cross. (Spread out your 16 square box, use at least 1/3 of the page for it)

2.) Do chi square analysis on the following counts. Interestingly you see some yellow bodies in the F1s. Would you accept or reject your hypothesis? Show your work to receive any credit.

brown eyes: 111
yellow body: 54
wild type: 46
double mutant: 95

3.) Three point cross, show your work to receive any credit. Be sure to draw your gene map. In Tasmanian devils, three dominant mutations are H (Hairy nostrils), R (Rat tail), S (Short fang).

hairy nostrils, rat tail, Short fang 306

hairy nostrils, rat tail, short fang 63

hairy nostrils, Rat tail, Short fang 110

Hairy nostrils, rat tail, Short fang 2

Hairy nostrils, Rat tail, short fang 348

Hairy nostrils, Rat tail, Short fang 73

Hairy nostrils, rat tail, short fang 96