

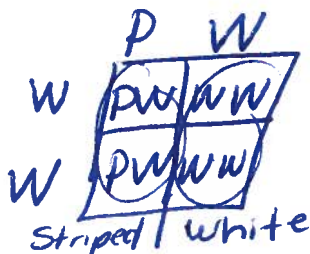
Complex Inheritance Patterns Practice

Name: Key Hour: _____

CODOMINANT TRAITS

In crocus flowers, white (W) and purple (P) colors are co-dominant, and result in a purple and white striped flower when both genes are present.

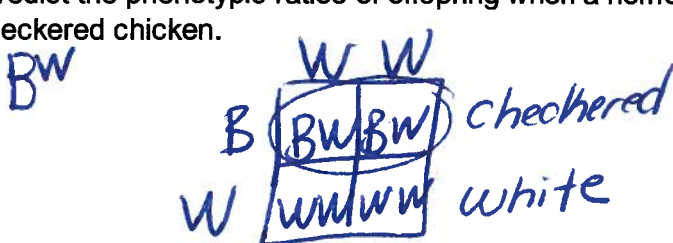
1. What are the possible results from the cross-pollination of a striped crocus with a white crocus?



PW PW
WW

Chickens can be (BB=Black feathers), white (WW = all white hairs), or checkered (BW = Checkered black and white feathers together).

2. Predict the phenotypic ratios of offspring when a homozygous white chicken is crossed with a checkered chicken.



3. What should the genotypes & phenotypes for parent chicken be if a farmer wanted only black feathered chickens?



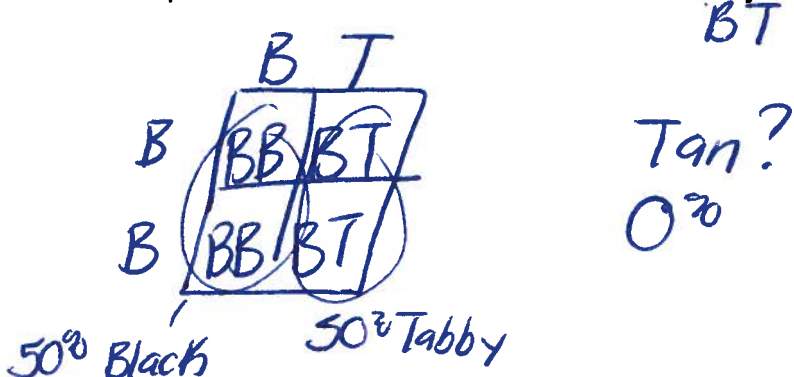
A cross between a black cat & a tan cat produces a tabby pattern (black & tan fur together).

BB TT BT

4. What pattern of inheritance does this show?

codominance

5. What percent of kittens would have tan fur if a tabby cat is crossed with a black cat?



INCOMPLETE DOMINANCE

A cross between a blue blahblah bird (I made this bird up) & a white blahblah bird produces offspring that are silver. The color of blahblah birds is determined by just two alleles.

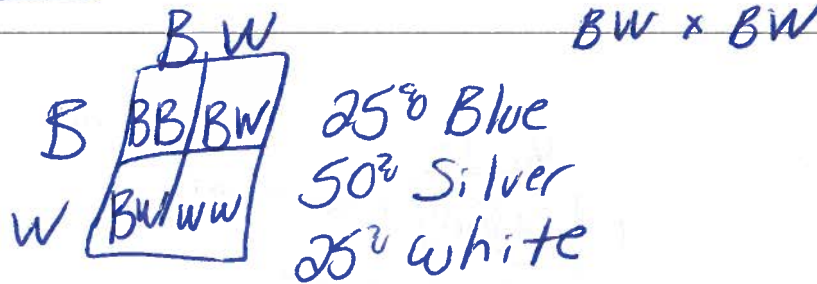
1. What are the genotypes of the parent blahblah birds in the original cross?



2. What is/are the genotype(s) of the silver offspring?

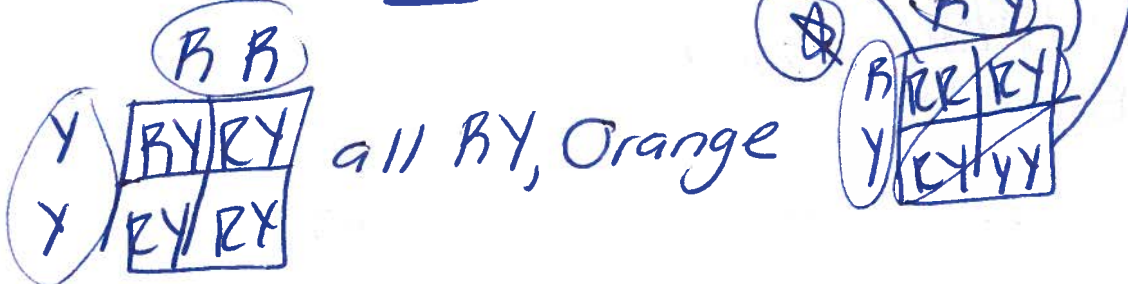
BW

3. What would be the phenotypic ratios of offspring produced by two silver blahblah birds?



The color of fruit for plant "P" is determined by two alleles. When two plants with orange fruits are crossed the following phenotypic ratios are present in the offspring: 25% red fruit, 50% orange fruit, 25% yellow fruit.

4. What are the genotypes of the parent orange-fruited plants?



In cattle, red (r) is incompletely dominant over white (w) hides. Roan is the name of the color that results from incomplete dominance.

5. What are the possible results if a white male mates with a roan female?

