

Name _____

Dihybrid Worksheet

1. In bunnies, black is dominant to white. Rough coat is dominant to smooth coat.
Give the genotype for each of the following.

Homozygous black smooth bunny _____ White smooth bunny _____
Heterozygous black rough bunny _____ Homozygous black rough bunny _____
White homozygous rough bunny _____ White heterozygous rough bunny _____

2. Give the gamete combination for each genotype.

AABb _____, _____, _____, _____ aabb _____, _____, _____, _____
AaBB _____, _____, _____, _____ AAbb _____, _____, _____, _____

3. Manx cats are dominant to cats having a tail. Normal coloration is dominant over albinism. Two heterozygous Manx cats with normal coloration were mated.

Give the genotype cross _____ X _____

Complete the Punnett Square

What would be the phenotypic ratio of the F1 generation?

___ Manx Normal Color, ___ Manx Albino, ___ Normal Tail and Color, ___ Normal Tail and Albino

What would be the genotypic ratio of the F1 generation?

___ MMCC, ___ MMcc, ___ MMcc, ___ MmCC, ___ MmCc, ___ Mmcc, ___ mmCC, ___ mmCc, ___ mmcc

4. In people, freckles and dimples are both dominant traits. A person who is homozygous for freckles and dimples marries a person who has neither trait.

Give the genotype cross _____ X _____

Complete the Punnett Square

What would be the phenotype of the offspring?

What would be the genotype of the offspring?

5. Cross the F1 generation from problem 4 to determine the F2 generation.

Give the genotype cross _____ X _____

Complete the Punnett Square

What would be the phenotypic ratio of the F2 generation?

____ Freckles and Dimples, ____ Freckles No Dimples, ____ No Freckles Dimples, ____ Neither Trait

What would be the genotypic ratio of the F2 generation?

____ FFDD, ____ FFdD, ____ FfDD, ____ FfDd, ____ Ffdd, ____ ffDD, ____ ffDd, ____ ffdd