

Practice: Codominance and Incomplete Dominance

Name _____

1. Practice setting up keys for the phenotypes listed in each set. Remember that the "medium" trait must always be heterozygous.

a) Birds can be blue, white, or white with blue-tipped feathers.

b) Flowers can be white, pink, or red.

c) A Hoo can have curly hair, spiked hair, or a mix of both curly and spiked.

d) A maple tree can be tall, medium, or short.

e) A zebra fish can have black & white stripes, be all black, or all white.

2. Now, can you figure out in the above list, which of the letters represent co-dominant traits and which are incomplete.

Co-dominant _____ Incompletely Dominant _____

3. In Smiley Faces, eye shape can be starred, circular, or a circle with a star. Write the genotypes for the pictured phenotypes



4. Show the cross between a star-eyed and a circle eyed.
What are the phenotypes of the offspring? _____
What are the genotypes? _____

5. Show the cross between a circle-star eyed, and a circle eyed.
How many of the offspring are circle-eyed? _____
How many of the offspring are circle-star eyed? _____

6. Show the cross between two circle-star eyed.
How many of the offspring are circle-eyed? _____
How many of the offspring are circle-star eyed? _____
How many are star eyed? _____

Multiple Allele Traits : Human Blood Type

Name _____ period _____ date _____

Human Blood type is controlled by a single gene with three alleles. The A allele (I^A) and the B allele (I^B) are CO-DOMINANT. Both the A and B alleles are Dominant to the O allele (i). For each of the following crosses determine the genotypes and phenotypes of the offspring.

1. $I^A I^A \times I^B i$

2. $I^B I^B \times I^A I^B$

3. A woman who is heterozygous Type A and a man who has Type O blood.

4. A woman with homozygous Type A and a man with Type AB blood.

5. A woman with heterozygous Type A and a man with Heterozygous Type B blood.