What’s the difference between a “character” and a “trait”?

What’s the difference between “true breeding” organisms and “hybridized”?

Define:

P generation

F1  generation

F2 generation

Explain Mendel’s model of inheritance that led to the LAW of SEGREGATION(distinguish between gene-locus-allele in your answer)

Define the following:

Homozygous-Heterozygous

Phenotype- Genotype

Explain what is meant by a “test cross”

Explain the Law of Independent Assortment

What type of genes does it apply to? THIS IS IMPORTANT

Define:

Monohybrid

Dihybrid

Trihybrid

Review the following:

Multiplication Rule(and)

Addition rule(or)

Forked Line(Branch) method

Explain each

Explain and provide a Punnett square example of each:

Complete dominance

Incomplete Dominance

Co- Dominance

What is “polydactyly” and what is it an example of?

How is human blood type an example of “multiple alleles”?

How is Tay-sachs an example of how the level of analysis determines the nature of the dominant/recessive relationship?

What is Pleiotropy? Give an example.

What is “epistasis”? Does it produce a 9:3:3:1 ratio?

Polygenic inheritance usually is involved in quantitative characters where there is a continuum of phenotypes. Explain

In the nature vs nurture debate we often see that many characters are “multifactorial”. What does this mean.

What is “Pedigree analysis”? Sketch out a simple pedigree for a single trait for a hypothetical family.

Human genetic disorders are not evenly distributed among all groups. Give some examples.

Define “consanguineous”. How does this concept relate the genetics of recessive traits with human social norms?

Summarize Cystic fibrosis. How is it an example of pleiotropic effects?

Summarize Sickle Cell Anemia. How is it an example of “heterozygous advantage”?

What are dominant disorders?

Explain the genetics of achondroplasia.

How can a lethal dominant allele remain in the gene pool? Explain Huntington’s disease.

Give some examples of some human “multifactorial disorders”