

## Concept 10.3

**There are many variations of inheritance patterns.**

**Intermediate inheritance** - for some characters of organisms, neither allele is dominant.

The heterozygotes have a phenotype that is intermediate between the phenotypes of the two homozygotes.

**Multiple Alleles** - For many genes several alleles exist in the population.

(ex. blood type)

**Codominance** - a heterozygote expresses both traits.

This is different from *intermediate inheritance*. The individual's phenotype is not intermediate, but rather shows the separate traits of both alleles.

**Polygenic Inheritance** - when two or more genes affect a single character.

(ex. height and skin color have polygenic inheritance )

**Importance of Environment:**

An individual's phenotype depends on environment

as well as on genes.

(ex. size of tree's leaves, Siamese cat coloring,  
human's height and build, person's blood  
count)