**Incomplete Dominance & Monogenetic Traits**

**More Vocabulary**

**Homozygous**:

**Heterozygous**:

**Incomplete Dominance**

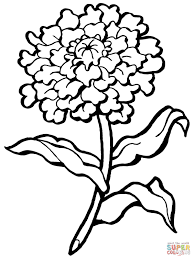
When members of a pure line of \_\_\_\_\_\_\_\_ carnations are crossed with pure \_\_\_\_ carnations the resulting hybrid offspring are \_\_\_\_\_\_\_.

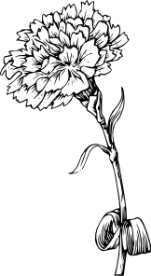
In this case, neither the \_\_\_\_\_\_\_ nor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alleles are completely \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, so the **heterozygous** children will have a phenotype that is in between the two **homozygous** parents.

The heterozygous carnations are a bright pink, rather than a faded pink, which implies the red allele is slightly more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the white allele.

Red allele:

White allele:





**Monogenetic Traits**

**Monogenetic** **Traits**:

**Examples of monogenetic traits in humans:**

* Free or Attached earlobes
* Presence or absence of Widow’s peak
* Tongue rolling ability or inability
* Presence or absence of eye pigment
* Presence of absence of Hitchhiker’s thumb

**Monohybrid** **cross**:

**Dihybrid** **cross**:

For example we could look at the making between Jim and Pam. Jim has a widow’s peak and is able to roll his tongue (WWRr). Pam has a widow’s peak, but cannot roll her tongue (Wwrr)

To predict the possible offspring of a dihybrid cross we need a \_\_\_\_\_\_\_\_\_ Punnet square.