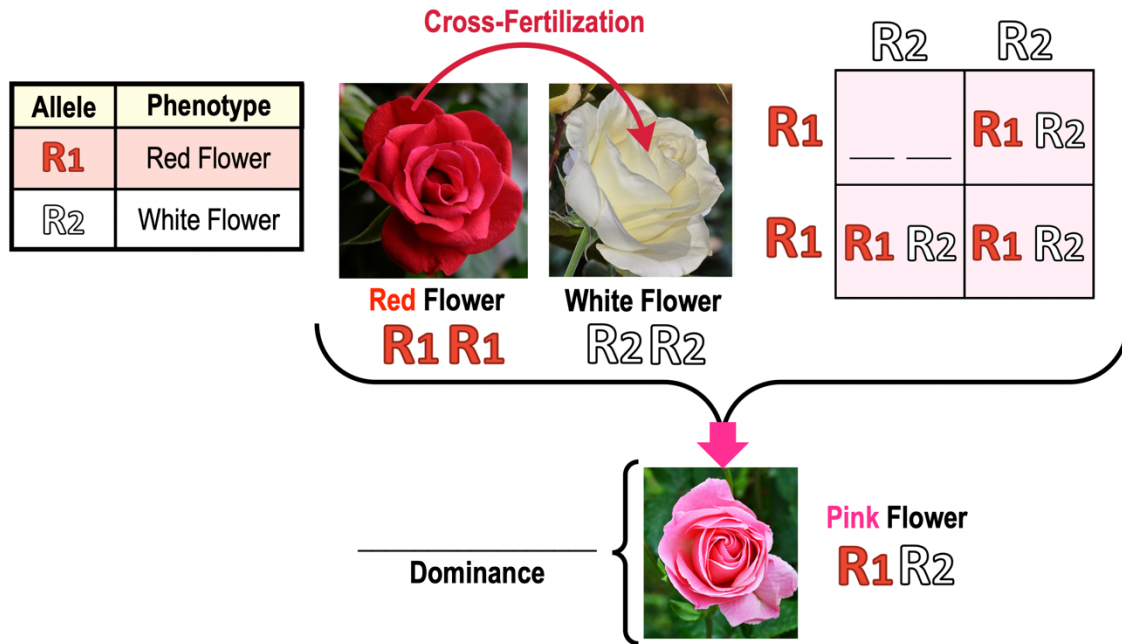


CONCEPT: INCOMPLETE DOMINANCE VS. CODOMINANCE

Incomplete Dominance

- Heterozygotes show a _____ phenotype that is an *intermediate* of the phenotypes from the two alleles.

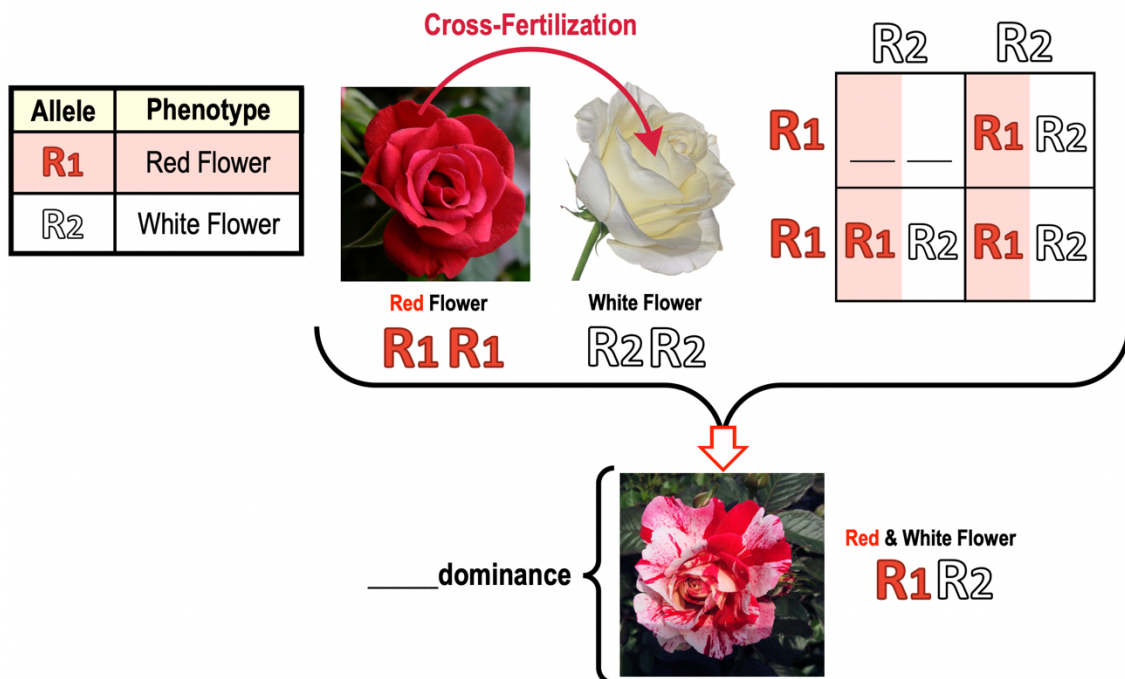
EXAMPLE: Incomplete Dominance in Red & White Flower Cross Makes Pink “Baby” Flowers.



Codominance

- Heterozygotes _____ express both phenotypes from each allele in “patches”.
 - 2 different alleles “dominate” _____ (one allele does _____ mask expression of the other).

EXAMPLE: Codominance in Red & White Flowers.



CONCEPT: INCOMPLETE DOMINANCE VS. CODOMINANCE

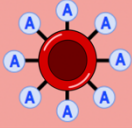
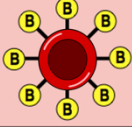
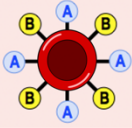
PRACTICE: You cross two true breeding lines of petunia. One produces red flowers and the other white flowers. The F1 offspring all show pink flowers. You conclude from this that:

- a) Red is dominant.
- b) White is dominant.
- c) Red is incompletely dominant.
- d) Red is incompletely recessive.
- e) None of the answers listed above are correct.

Codominance & Blood Type

- Blood-type in humans is a common example of _____ dominance.
 - ☐ Blood type is determined by combinations of _____ possible alleles: I^A , I^B , or i .
 - ☐ I^A & I^B alleles are _____, whereas the i allele is _____.

EXAMPLE: ABO Blood Types.

Genotype	Surface Molecules	Phenotype
$I^A I^A$ or $I^A i$	 Only	 Type-____ blood
$I^B I^B$ or $I^B i$	 Only	 Type-____ blood
$I^A I^B$	 and 	 Type-____ blood
ii	NONE	 Type-____ blood

PRACTICE: If you look at a blood sample from a person who is heterozygous at the sickle cell locus you will see both normal circular red blood cells and sickle-shaped red blood cells. This is an example of

- a) multi-locus inheritance.
- b) complete dominance.
- c) incomplete dominance.
- d) codominance.
- e) linked genes.

CONCEPT: INCOMPLETE DOMINANCE VS. CODOMINANCE

PRACTICE: A gene for the MN blood group has codominant alleles M and N. If both children in a family are of blood type M, which of the following situations is possible?

- a) Each parent is either M or MN.
- b) Each parent must be type M.
- c) Both children are heterozygous for this gene.
- d) Neither parent can have the N allele.

PRACTICE: The number of different alleles for ABO blood types is _____ resulting in _____ different blood types.

- a) 3; 3.
- b) 4; 3.
- c) 6; 3.
- d) 3; 4.
- e) 2; 4.