Punnetts Cheat Sheet

by ABaumgart via cheatography.com/210964/cs/45611/

Monohybrid Cross

Alleles for Rita>>> / Fred's Alleles	 B	 b
 B	BB	Bb
 b	Bb	bb

Terms

Homozygous Dominant - AA

Homozygous Recessive - aa

Heterozygous - Aa; sometimes called a "-carrier"

Genotype - the alleles inherited from parents; represented by letters (example: AA)

Phenotype - observable trait that results from the genotype (example: Brown Eyes)

Dominant - masks recessive trait; only need to inherit one copy to display trait

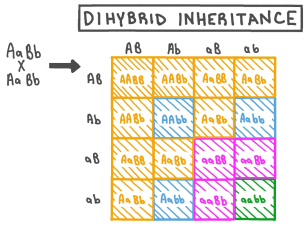
Recessive - must inherit two recessive alleles to display trait; "hidden" when dominant allele is present

Males and Females

Female XX

Male XY

Dihybrid Cross



Use FOIL to determine each possible combination that can be passed from parent to child.

Dihybrid FOIL

Incomplete Dominance

Polygenic Traits

When two or more genes control a trait

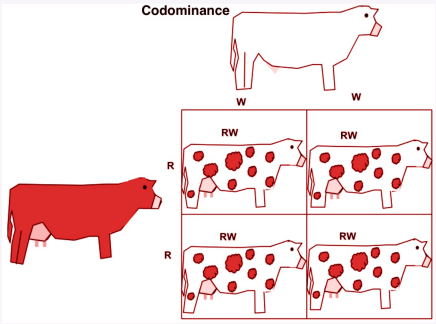
Skin Color - 4 to 7 genes

Eye Color

Height

Blood Type (Type + Rh Factor)

Codominance



Codominance (Blood Type)

Genotype	Phenotype
$I^A\_$ (I^AI^A or I^Ai)	 Type A
$I^B\_$ (I^BI^B or I^Bi)	 Type B
ii	 Type o
I^AI^B	 Type AB

A is Codominant with B

O is recessive to A and B

+ is dominant

- is recessive

X-Linked

* X-linked traits are much more common in males than females because males have only one X chromosome. Females need to inherit two mutated alleles to have the disease, while men can get the disease with just one mutated allele.

* X^CX is an unaffected female carrier

* X^CY is an affected male

* X^CX^C is an affected female

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