

Pedigrees

-draw the following pedigree symbols

-male

-female

-mating couple

-affected individuals / not affected

-twins (fraternal and identical)

- a “married in” individual or individual from outside the family mating within

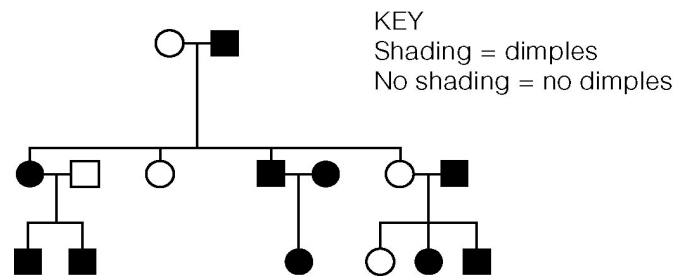
-where are GENERATIONS on a pedigree

-How are the individuals identified on a pedigree

-On the following pedigree, what is the

Genotype of each individual is mom is “Dd” Lee Family

And dad is “dd”



What is chance that I1 and I2 have a girl that has dimples?

Modes of Inheritance

What are the 4 main modes of inheritance and the 2 others ?

-what do the “others” pedigree charts look like?

2 questions you can ask to identify a MODE OF INHERITANCE

1)

if YES...

if NO...

2)

if YES...

if NO...

Be able to identify the genotype for each individual on a pedigree...

SOME TIPS...

-if it's a X linked pattern of inheritance start by giving all boys XY and all girls XX

-boys can only be affected by an X linked trait on one of their chromosomes...the X one...

-one strategy is to work backwards and ask yourself what parent genotypes would be necessary to achieve an affected individual

-on **X linked dominant inheritance** only 1 dominant allele is needed for trait to occur (male or female) (eg) $X^T X^t$ $X^T Y$

-on **X linked recessive inheritance** females need two recessive alleles for trait to occur and males only 1 because they only have 1 X

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-use punnett squares to see what possibilities offspring might be