CONCEPT: AUTOSOMAL INHERITANCE

●A specific family trait/disorder can be tracked over multiple generations to identify the _____ *pattern*.

□ *Inheritance patterns* can either be _____ or _____-linked.

Autosomal Disorders

●Traits/disorders associated with _____ (non-sex-chromosomes) can be inherited in 2 ways:

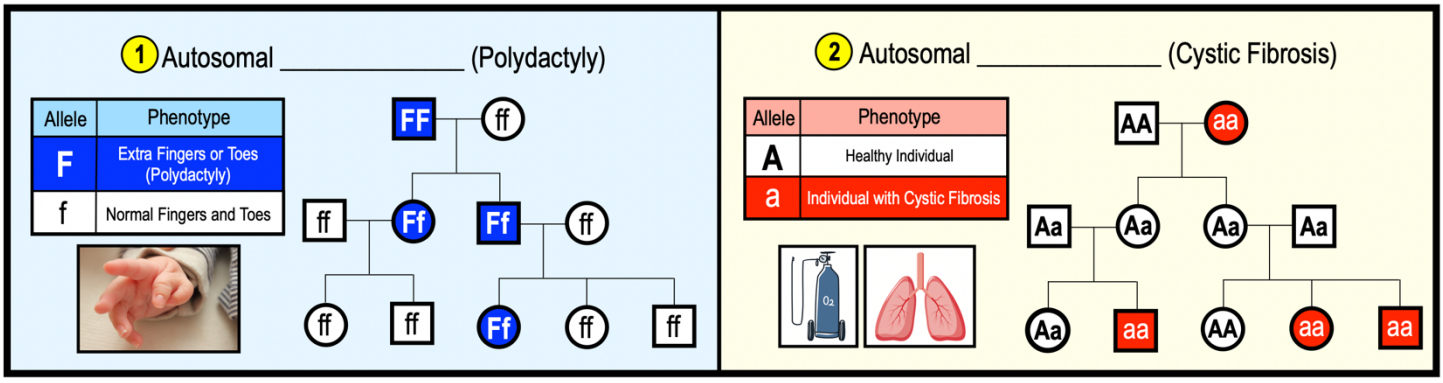
1) **Autosomal** _____ **Disorders:** disorder in individuals with ≥ 1 *dominant* allele (ex. FF or Ff).

□ *Dominant* disorders tend to appear in _____ generation.

2) **Autosomal** _____ **Disorders:** disorder in individuals that are homozygous *recessive* (ex. aa).

□ *Recessive* disorders tend to _____ a generation.

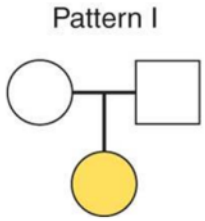
EXAMPLE: Autosomal Dominant Disorder vs. Autosomal Recessive disorder Pedigrees.



PRACTICE: If a genetic counselor was examining a pedigree chart and noticed an occurrence of a disease in every generation, the counselor would most likely assume that the disease was caused by:

a) A new reoccurring mutation.
b) An autosomal recessive disorder.
c) A chromosomal abnormality.
d) An autosomal dominant disorder.
e) Having an extra set of chromosomes.

PRACTICE: The pedigree chart shown depicts the inheritance pattern of _____.



a) An autosomal recessive characteristic with both parents being heterozygous.
b) An autosomal dominant characteristic with both parents being homozygous dominant.
c) An autosomal recessive characteristic with both parents being homozygous recessive.
d) None.

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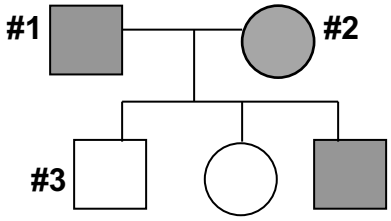
PRACTICE: Determine the likely pattern of inheritance in the following pedigree. List the genotypes of the numbered individuals in this order: #1, #2, and #3.

a) aa, aa, aa.
b) Aa, Aa, Aa.
c) Aa, Aa, aa.
d) AA, Aa, aa.
e) None of the above.



PRACTICE: The following pedigree is for the ABO blood type group, which is an example of autosomal inheritance. Using the I^A , I^B , i for the alleles, fill in the top half of each box/circle with the genotype. Also, fill in the bottom half of each box/circle with the phenotype (A, B, AB, or O blood type). If it is impossible to know for certain a specific allele in the genotype, then place a "?" as a placeholder to represent the allele that is in question.