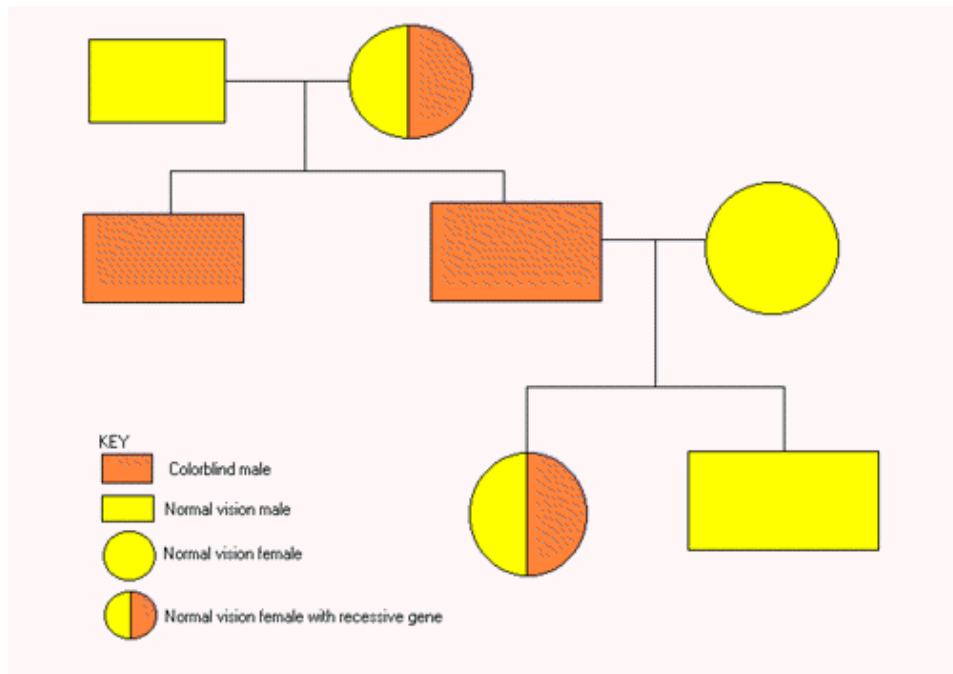


Pedigree Charts

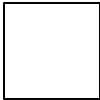


Ticket IN the door :)



Tay Sachs is caused by a recessive gene. A person who has Tay Sachs has a child with a person who is a carrier (i.e., heterozygous).

- a. What are the genotypes of the parents?
- b. What are the possible genotypes of the children?
- c. What are the possible phenotypes of the children?
- d. If this couple had 10 (!!!) children, how many would you predict would have diabetes? Is this number for sure???

Pedigree Charts

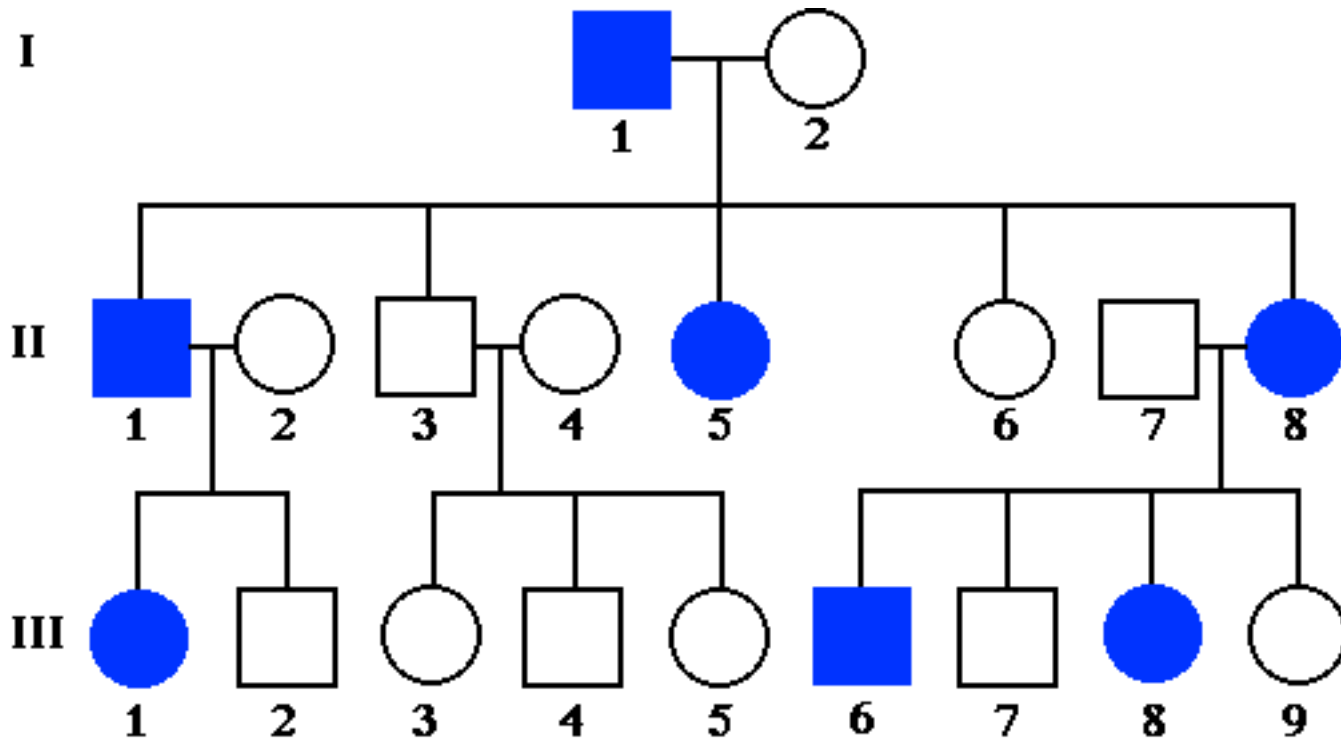
 = Males  = Females

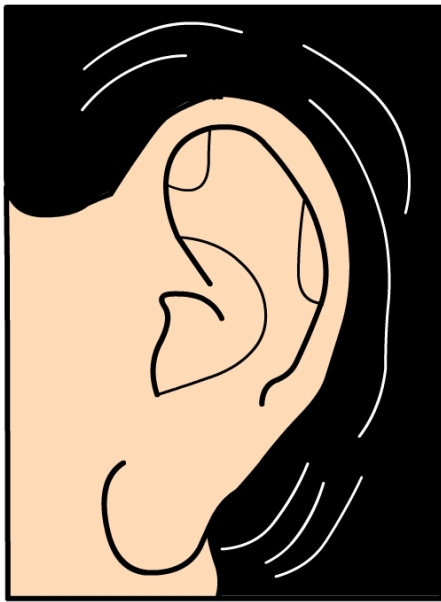
  = person affected by trait

  = heterozygous carrier of the trait
(person who carries the recessive trait but doesn't show the characteristic)

pedigree chart

- a diagram that illustrates the genetic relationships among related individuals
- can be used with a simple dominant trait & 2 possible alleles

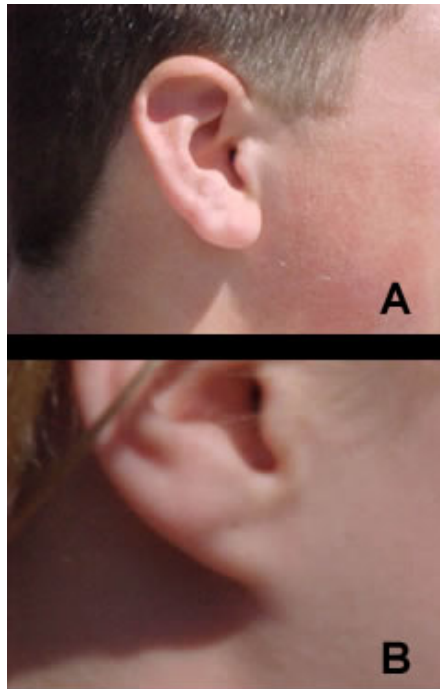




Free ear lobe



Attached ear lobes





Left over right- dominant

Dominant

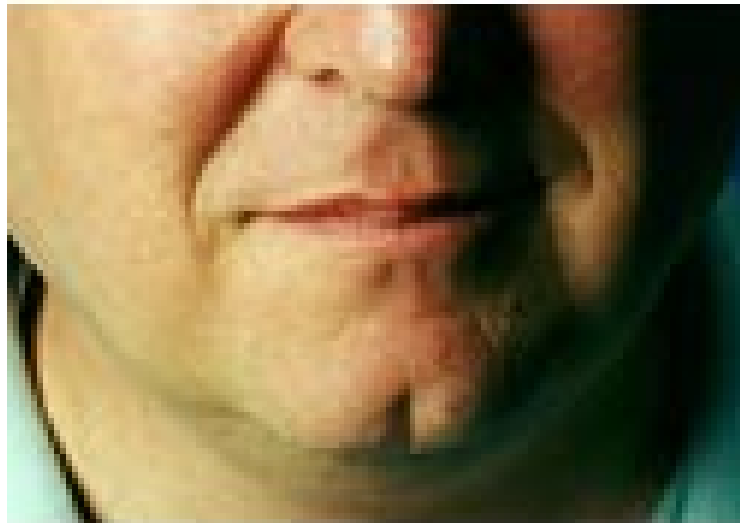




Recessive



Recessive



Dominant



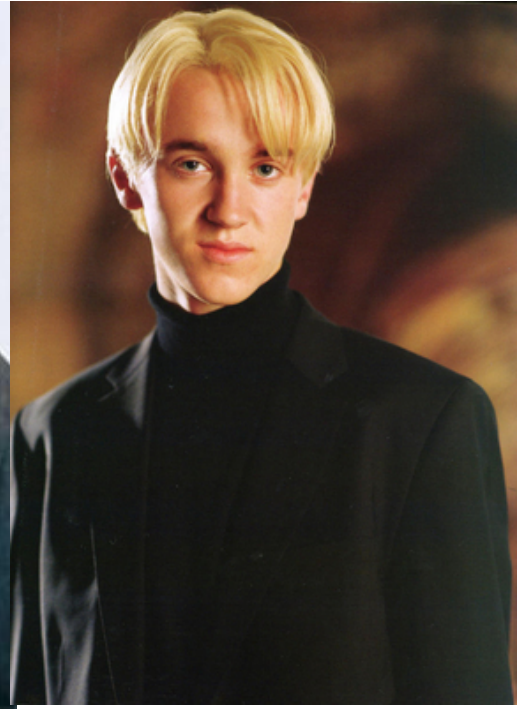
Brown/Black

Dominant



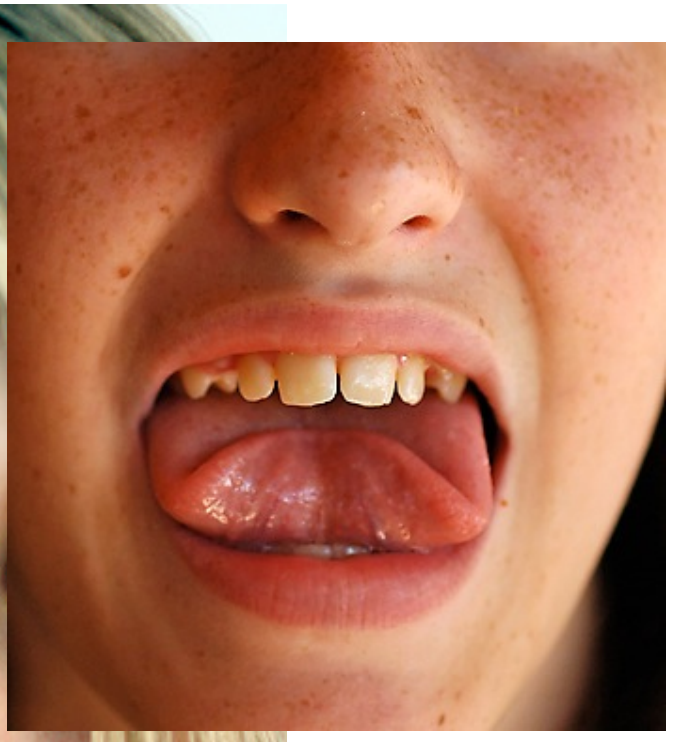
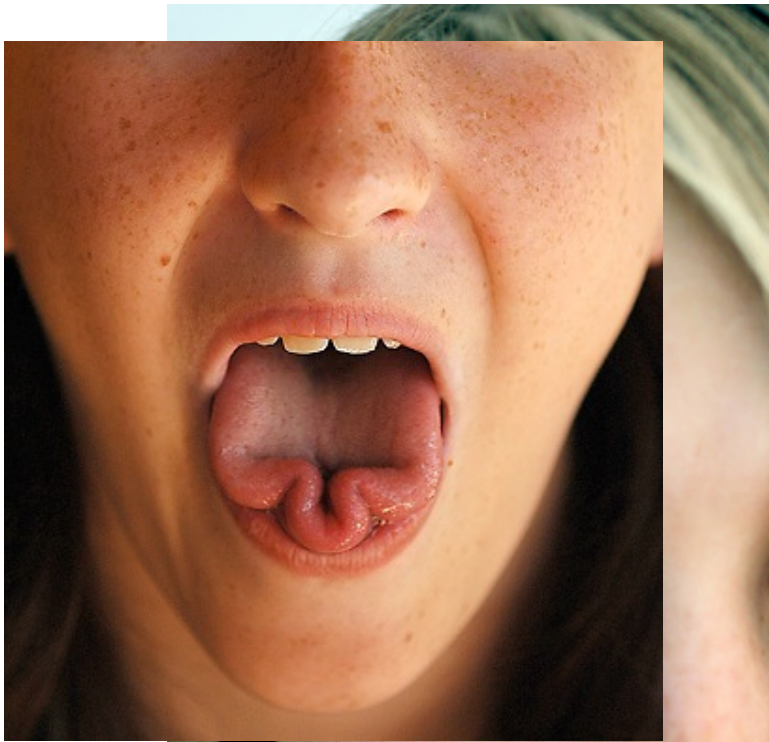
Red

Recessive



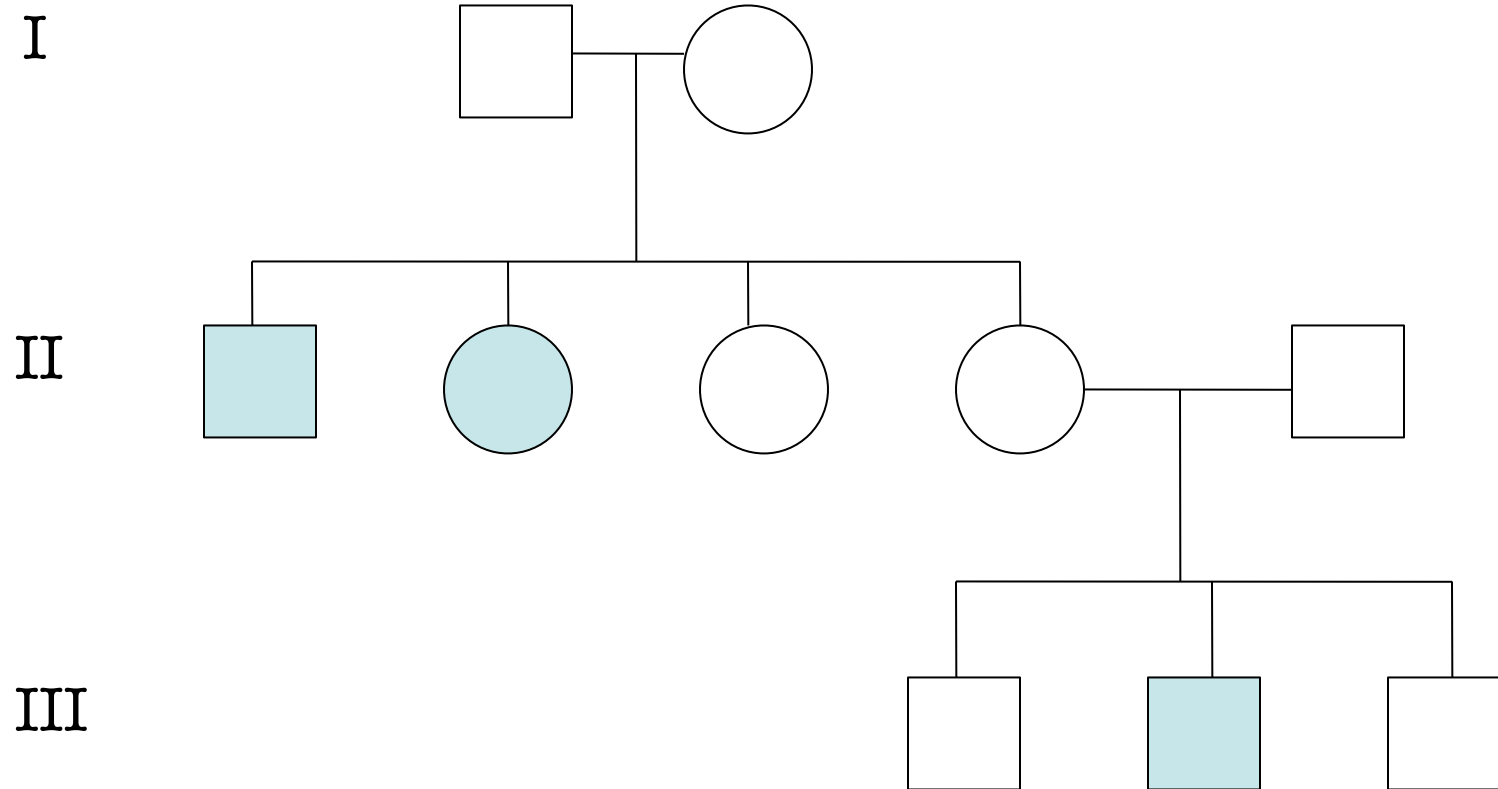
Blonde

Recessive



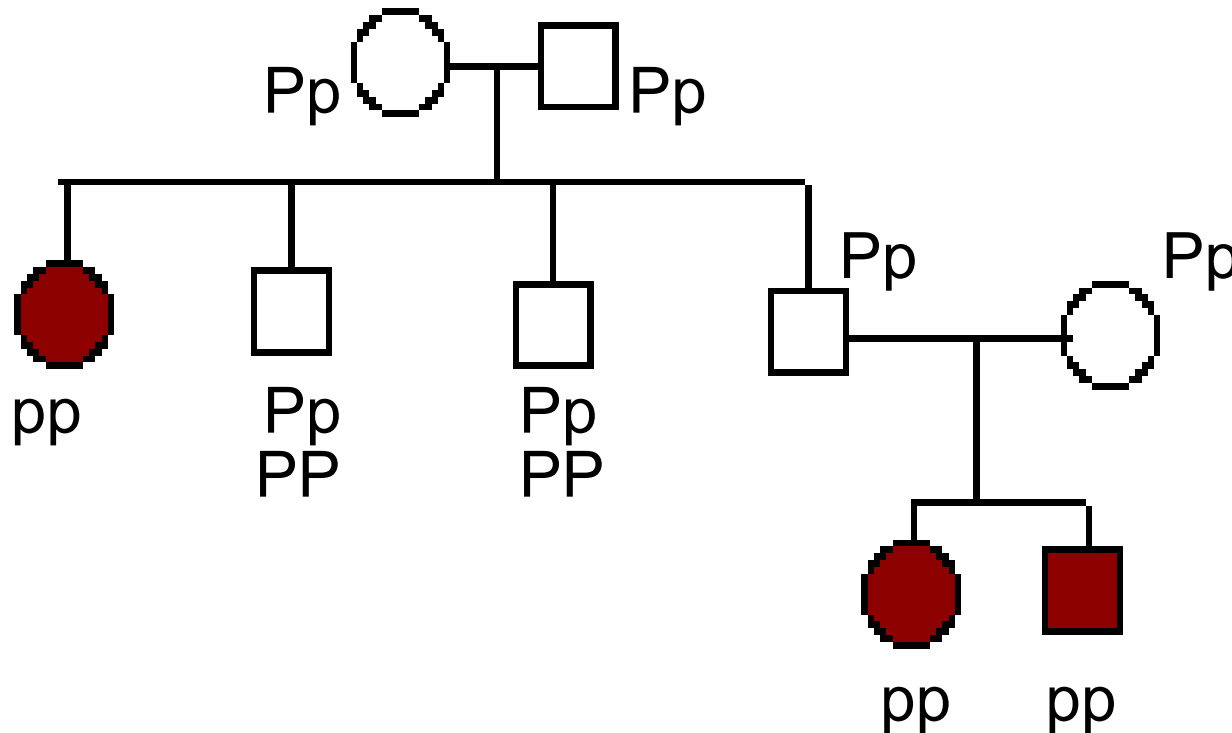
Dominant

Recessive Example-Look at the an unfortunate family with cystic fibrosis



The pedigree shown here is of a family carrying the gene for phenylketonuria (PKU). PKU is a recessive disease that presents itself in children.

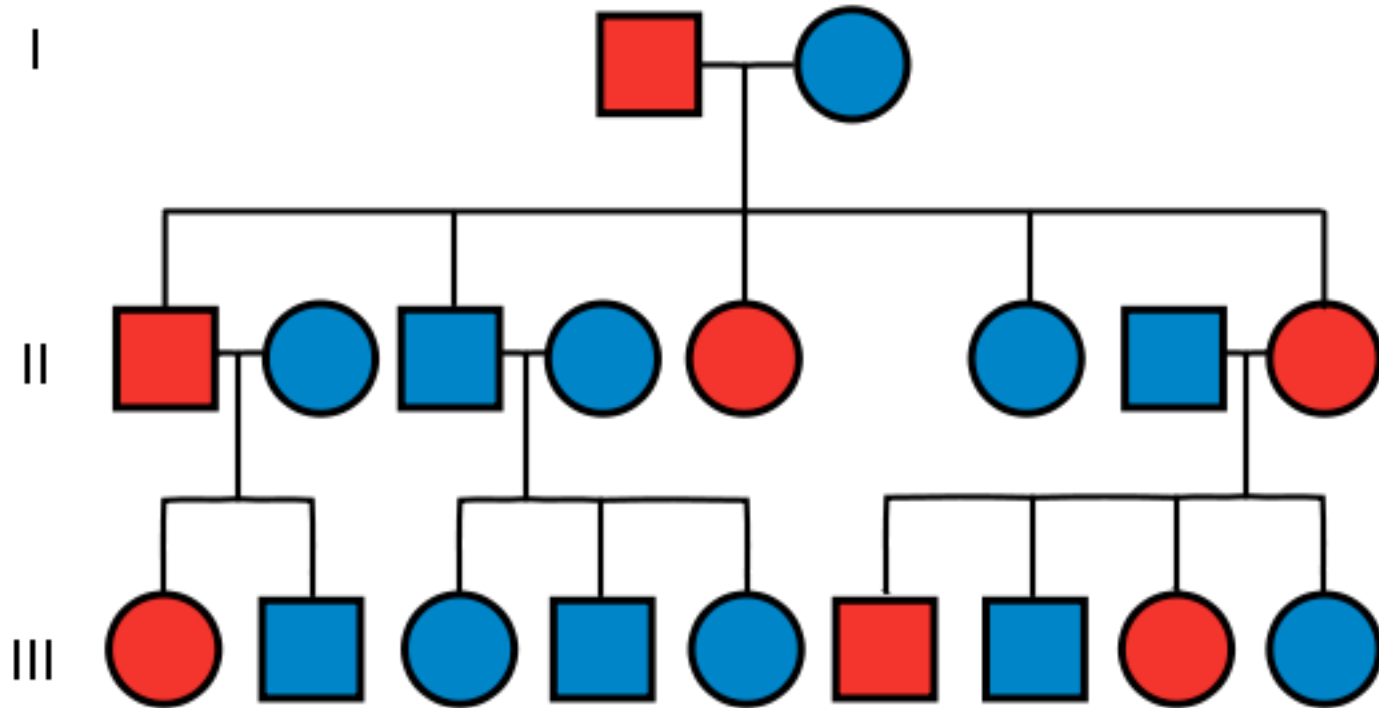
P=normal
p=PKU



Pedigree Charts for Dominant Traits



Dominant Example



 Affected

Homework

Make a pedigree chart for your family for ONE of the traits (*Pick an 'easy' trait - e.g. hand folding, tongue rolling.*)