Pedigree Analysis

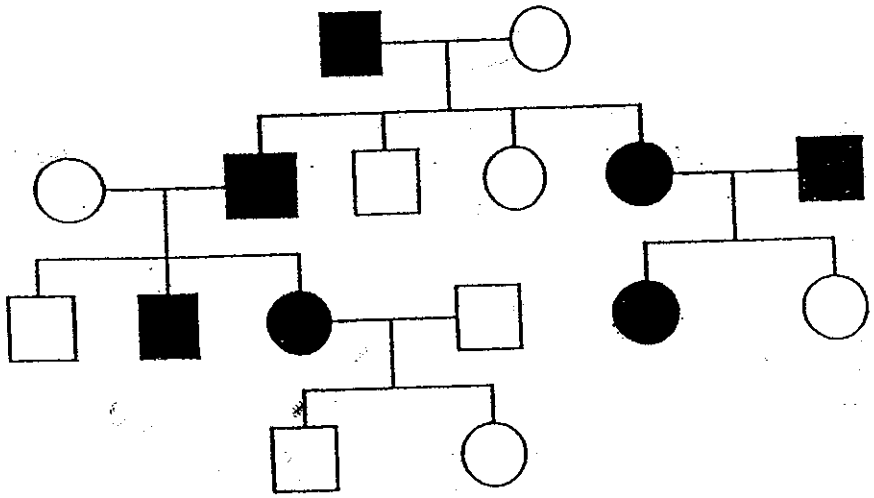
Name: _____ Date: _____

Pedigree: a tool used in genetics to help trace the occurrence of traits in a family.

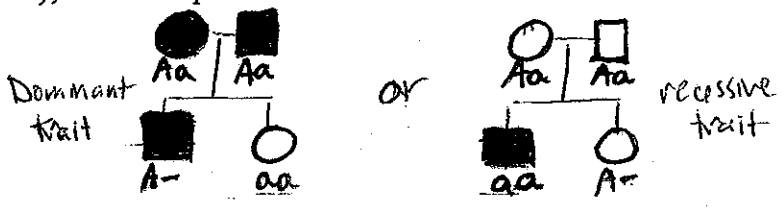
○ = female w/out trait □ = male w/out trait ● = female with trait ■ = male with trait

○—□ = marriage = children = identical twins

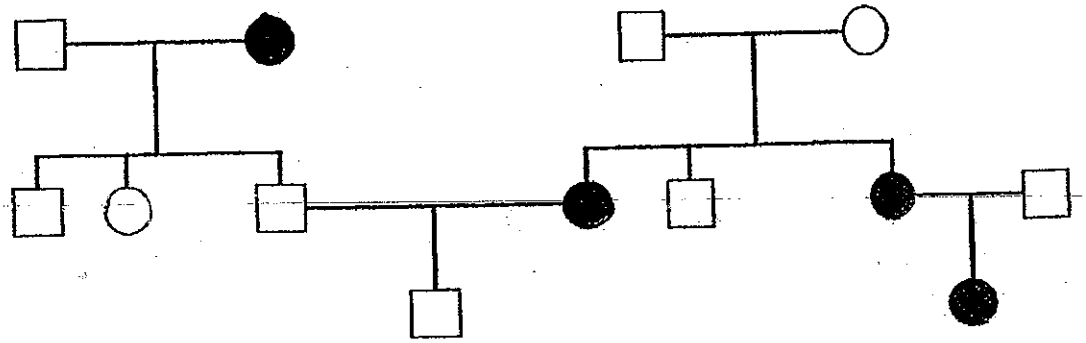
Problem 1: The pedigree below shows the pattern of inheritance of a dominant trait in a particular family. List all the possible genotypes of each individual. Use DD, Dd, and dd as the symbols for the alleles.



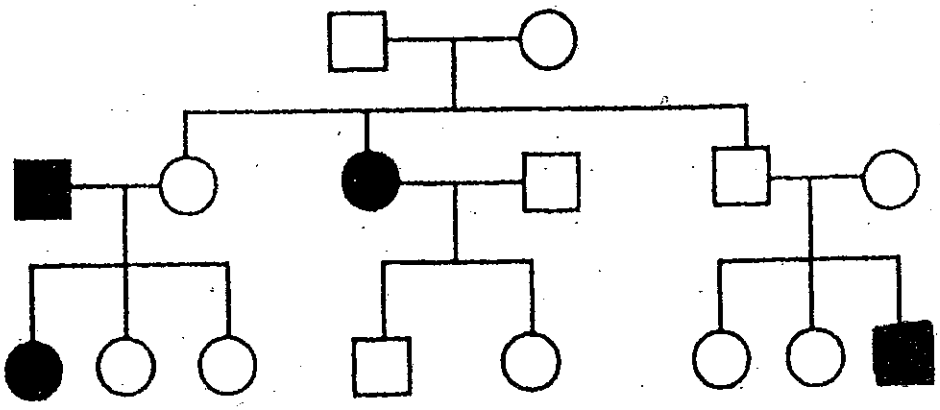
Hint: If two parents look the same (ex. both filled in), and they have a child who is different (ex. not filled in), then both parents MUST be HETEROZYGOTES. Look for this first!



Problem 2: The following pedigree is for a recessive gene that causes people to have albinism. All of the circles and squares that are filled have the disorder and are therefore recessive.
Use the letter A.

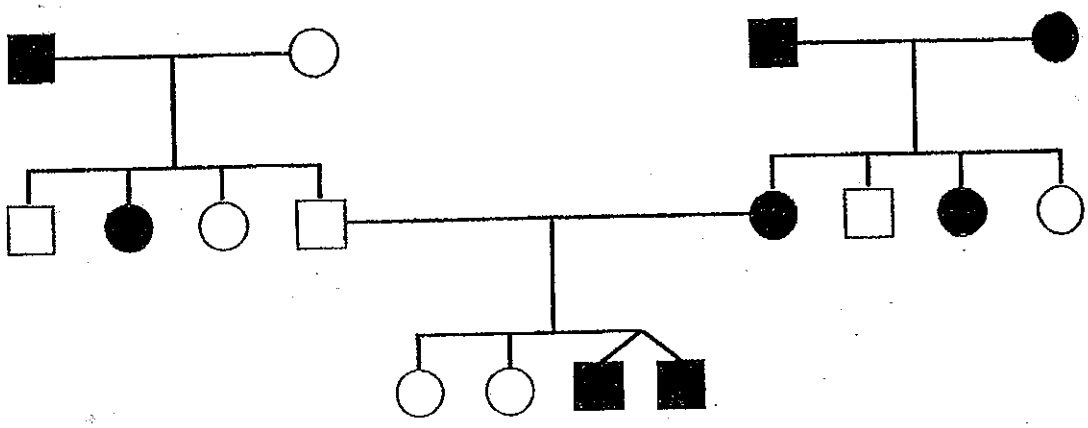


Problem 3: The following pedigree is for a gene that causes people to have 3 eyeballs (all filled in individuals have 3 eyeballs). You need to determine if the gene is dominant or recessive.
Use the letter B.



Homework: Determine if the following pedigrees are for dominant or recessive traits. Then fill in the appropriate alleles for each of the individuals in the pedigree. Use A's for the alleles on both.

Pedigree 4.



Pedigree 5.