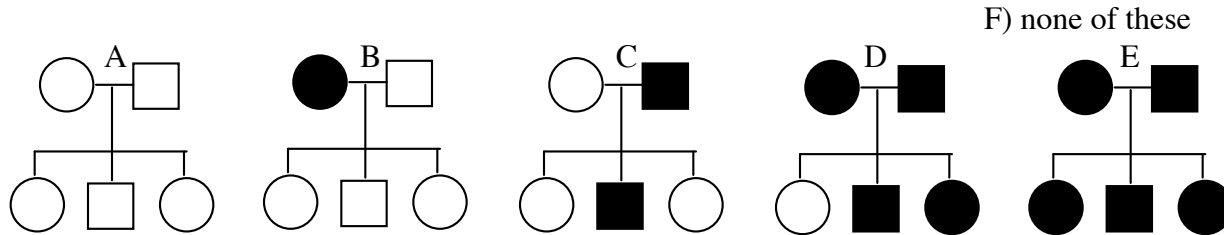


PEDIGREE ANALYSIS QUIZ

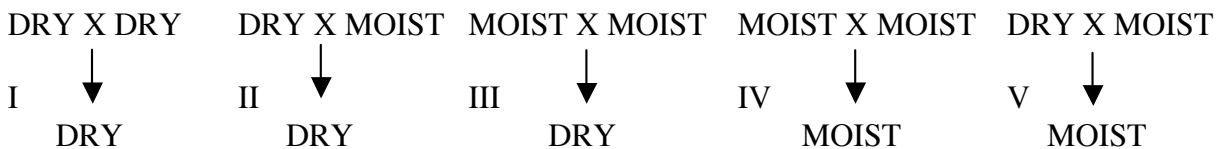
1. All 5 of the following pedigree patterns were found in different families for the same trait. Which one of these pedigrees shows most reliably the phenotype that is dominant and the one that is recessive?



2. According to that pedigree, which phenotype is recessive? A) shaded symbol; B) clear symbol; C) Contradictory evidence, can't tell; D) appropriate pedigree not shown

3. If one phenotype is X-linked recessive, which one is it? A) shaded symbol; B) clear symbol; C) neither could be X-linked recessive; D) impossible to tell with these pedigrees.

4. Earwax can be either dry or moist, and this trait is genetically determined. The following pedigrees are each typical of many families studied. By analyzing those pedigrees together, indicate which phenotype is dominant, if possible. A) dry; B) moist; C) neither (shows codominance); D) not enough info to tell for sure; E) evidence is conflicting.



5. Which one of these five pedigrees shows most clearly what phenotype must be dominant and what phenotype must be recessive? A) I; B) II; C) III; D) IV; E) V

KEY: 1) D [two parents the same, with one child who has different phenotype]; 2) C; 3) C; 4) B; 5) C.

NOTES: By merely changing dominant to recessive (or vice versa) on selected questions (e.g., #2 and 4), you can make two different forms to hand out to students sitting side-by-side.

Terminology: In the last two questions, “Earwax Texture” would be the trait, while “Dry” and “Moist” would be the phenotypes. If students are not familiar with phenotype and genotype yet, you could substitute “form of the trait” for phenotype, and “allele combination” (or even “gene combination”) for genotype. Be sure your terminology in the quiz is consistent with the terminology in the Pedigree Assignment, which you can modify, if you like. If you would like a Word version of the Pedigree Assignment so you could change it more easily, please request this from the **Webmaster** by email. Likewise for the Sample Quiz.