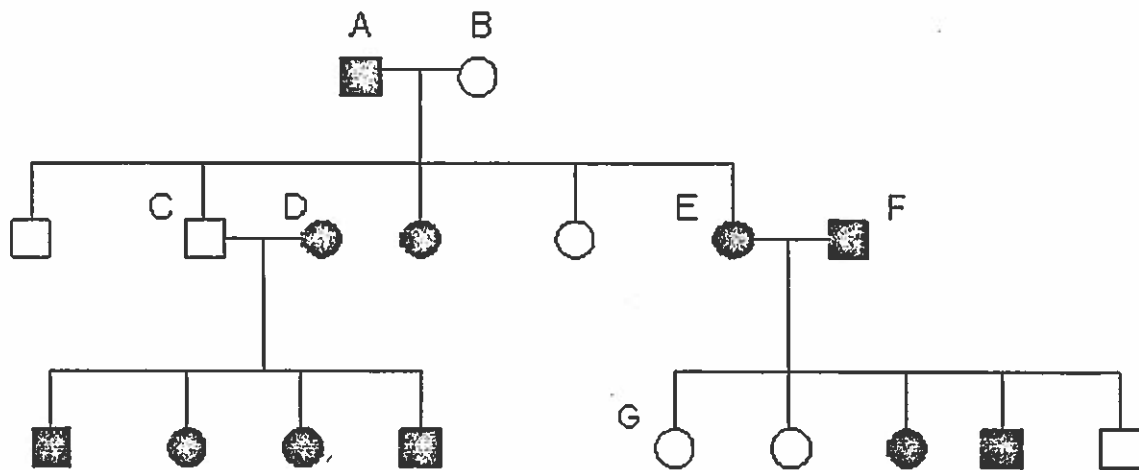


Achondroplasia

Shown below is a pedigree chart for the inheritance of achondroplasia (ay-kon-druh-play-zhuh), a form of dwarfism. Dark circles or squares indicate individuals with achondroplasia. Examine the pedigree chart, and answer the following questions.

Is the gene that causes this form of dwarfism a recessive or dominant trait? How do you know?

Using (D) to represent the dominant allele and (d) to represent the recessive allele, write the genotypes of the indicated individuals. For one of the labeled individuals, there are two possible genotypes. Write both genotypes and indicate which one is more likely.



Albinism

The pedigree chart below shows inheritance of the gene that causes albinism. A and B represent a couple who had five children, including C and E. Only one of the children, E, was albino. E and her husband had five children, including G. In the pedigree below write the genotypes of the individuals who are labeled with letters, using (A) to represent the dominant allele and (a) to represent the recessive allele. Start by indicating the genotypes of E and F. Then use a Punnett Square to figure out what the genotypes for C and D must be. Next, determine the genotypes of A and B. Finally, determine the genotype of G.

