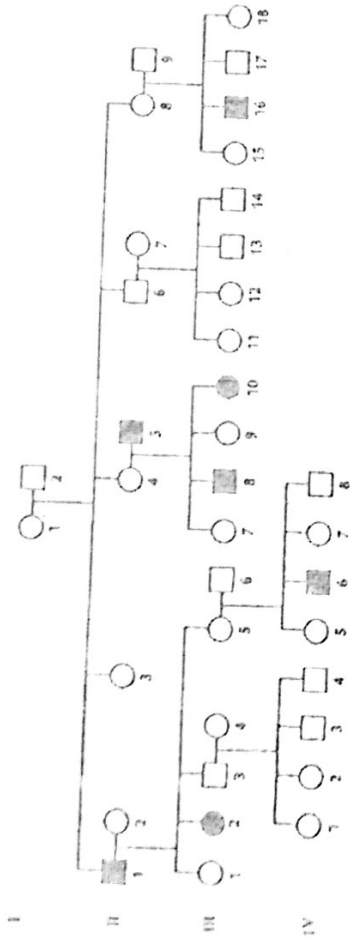


**Pedigree Analysis**

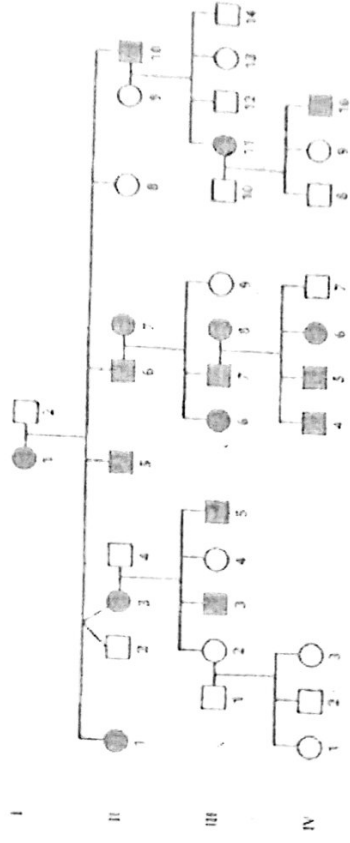
Study the pedigree for hemophilia shown below and answer questions 1-18.



1. Does the pedigree above show an autosomal or sex-linked disorder? \_\_\_\_\_
2. Does the pedigree above show a dominant or recessive disorder? \_\_\_\_\_
3. How many males in this pedigree have hemophilia? \_\_\_\_\_
4. How many males in this pedigree are normal? \_\_\_\_\_
5. How many females in this pedigree have hemophilia? \_\_\_\_\_
6. How many females in this pedigree are normal? \_\_\_\_\_
7. How many generations are represented in this pedigree? \_\_\_\_\_
8. How many marriages are there in this pedigree? \_\_\_\_\_
9. How many children did the couple in Generation I have? \_\_\_\_\_
10. Was the oldest child a male or female? \_\_\_\_\_
11. How many of their children were females? \_\_\_\_\_
12. Write in the genotypes for all the individuals in the pedigree. \_\_\_\_\_
13. How many males have the genotype X<sup>h</sup>Y? \_\_\_\_\_
14. How many males have the genotype X<sup>H</sup>Y? \_\_\_\_\_
15. How many females have the genotype X<sup>H</sup>X<sup>H</sup>? \_\_\_\_\_
16. How many females have the genotype X<sup>H</sup>X<sup>h</sup>? \_\_\_\_\_
17. How many females have the genotype X<sup>h</sup>X<sup>h</sup>? \_\_\_\_\_

18. How is it possible for unaffected parents in this pedigree to have an affected child? \_\_\_\_\_

Study the pedigree below showing brachydactyly. Brachydactyly is a condition in which fingers are abnormally short. Answer questions 19-26 using the pedigree below.



19. Does the pedigree above show an autosomal or sex-linked disorder? \_\_\_\_\_
20. Does the pedigree above show a dominant or recessive disorder? \_\_\_\_\_
21. Write in the genotypes for all of the individuals in the pedigree. \_\_\_\_\_
22. How many males in this pedigree have brachydactyly? \_\_\_\_\_
23. How many males in this pedigree are normal? \_\_\_\_\_
24. How many females in this pedigree have brachydactyly? \_\_\_\_\_
25. How many females in this pedigree are normal? \_\_\_\_\_
26. Why do you think the two individuals in Generation 2 (II-2 and II-3) are joined together? What does this represent in a pedigree? \_\_\_\_\_