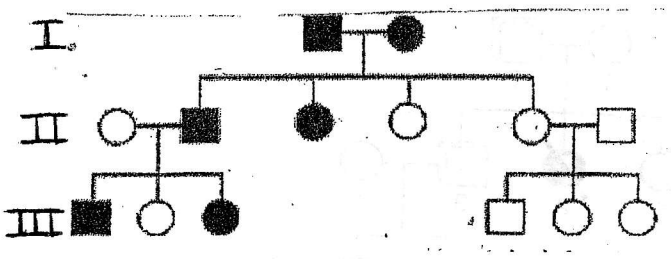
Pedigrees

1. What are autosomes? How many autosomes does a normal human have?

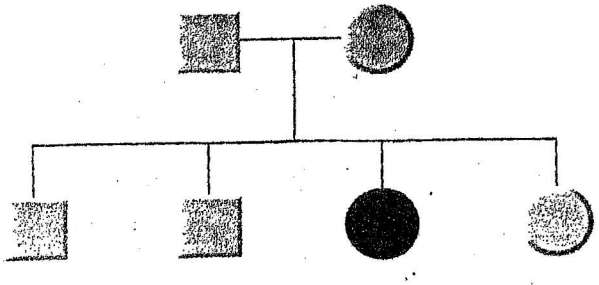
2. What are the sex chromosomes? Which ones indicate a male? Which ones indicate a female?

3. A man with a Y-linked disorder has three sons and three daughters by the same mother. His first son has two sons and two daughters with his wife. Draw the pedigree for this family. Since the disorder is y-linked, shade in the people that would be affected.

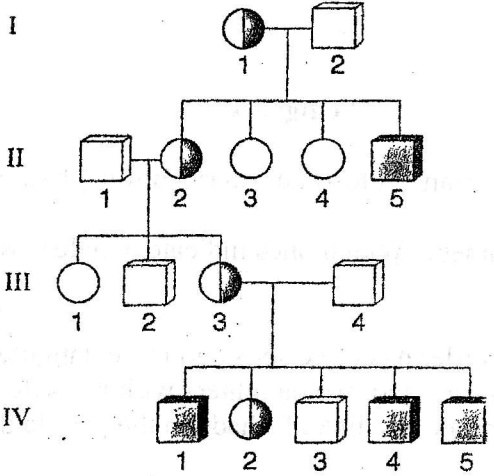
4. Use the pedigree below to answer the following questions (carriers aren't shown)
   a. What pattern of inheritance does this pedigree show? Explain your answer
   b. Name an example of a disease inherited this way.
   c. How many children in the second generation have the trait?



5. Use the pedigree below to answer the following questions: (carriers aren't shown)
   a. What pattern of inheritance does this pedigree show? Explain your answer
   b. Name an example of a disease inherited this way.



6. Use the pedigree below to answer the following questions:
   a. What pattern of inheritance does this pedigree show? Explain your answer
   b. Why are males affected but females are only carriers?
   c. Name an example of a disorder inherited in this way.



7. The following pedigree shows the inheritance of Tay-Sach's disease, which is an autosomal recessive disorder. Affected individuals die before the age of five. Explain why this disease can continue to be passed through the family if affected individuals die before they can marry and have children. (Note: carriers aren't shown)