

Name _____

Date _____

Section Skills_

Mystery Illness - Create a Pedigree

Dr. Gene is a research geneticist and has recently met a family with a new illness. He interviewed the family and found out the following facts. Help him create a pedigree for this family so he can find out more about their illness.

Create a key for your pedigree.

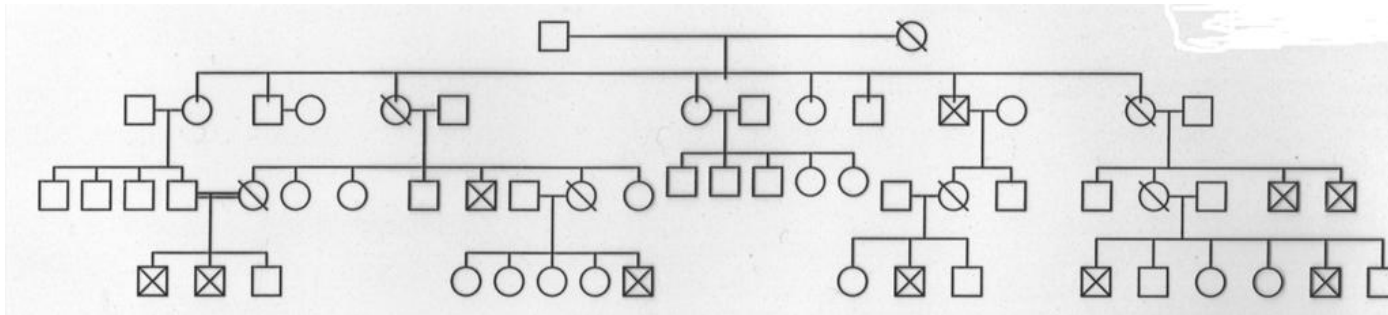
The *Base* Family Data:

1. The family has three generations that can share data about their illness.
2. Neither grandparent has the illness.
3. The second generation has three children: two girls and a boy, all have the illness.
4. The oldest girl and her husband had twin girls. Neither twin has symptoms of the illness.
5. The middle daughter has not married; she has the illness.
6. The son married a woman without the illness but she may carry the gene. They have two children, a boy and a girl.
7. This granddaughter has the illness but the grandson does not.

Questions from Dr. Gene:

1. How many grandchildren are there?
2. How did you color the twin granddaughters? Explain.
3. Does the illness seem to be a dominant or recessive trait? How do you know?

Interpret a Pedigree



1. How many generations are shown?
2. Create a key for the pedigree? (Include shapes and markings.)
3. Describe the parents in the first generation.
4. Is this disease a dominant or recessive trait?
5. How do you know?
6. Is this trait a sex-linked trait? (Is it found on the X or Y chromosome.)
7. How do you know?
8. If sex-linked, on which chromosome is the gene found?
9. How many offspring in the family have the disease?
10. Of those with the disease, how many are boys?how many are girls?