

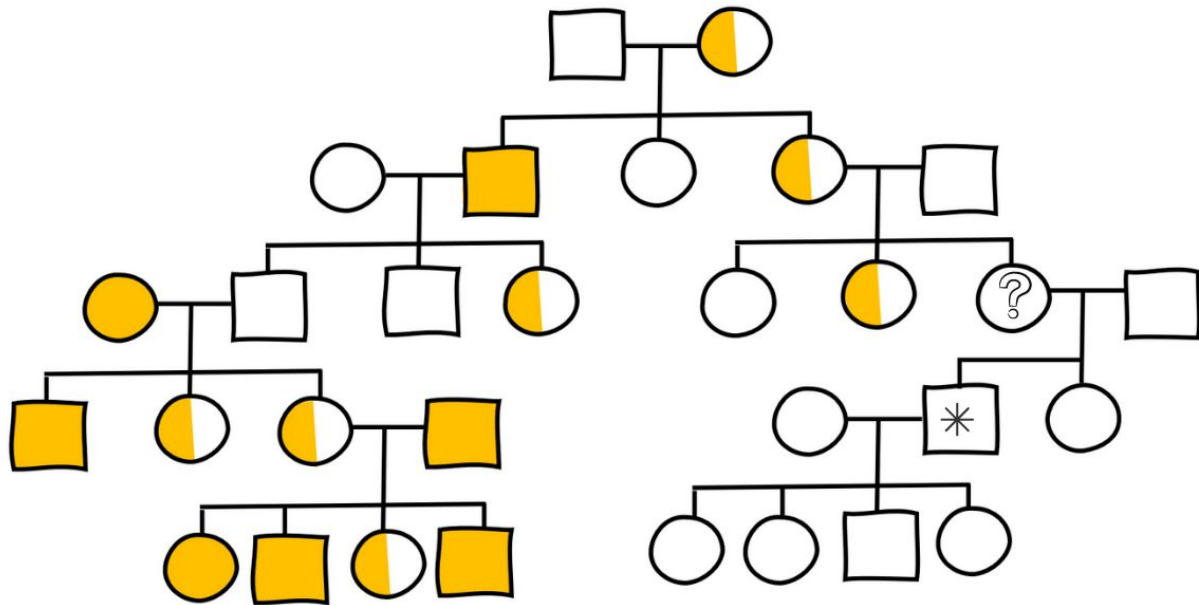
Pedigree Worksheet 7

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Comprehension Skills



Becker's muscular dystrophy is an inherited disorder characterized by progressive, but slow, muscular weakness. Caused by a mutation in the gene encoding dystrophin (DMD), the disease is associated with diminished muscle fiber architectural integrity. The pedigree above illustrates the inheritance pattern of Becker's muscular dystrophy. Using this pedigree, answer the following questions:

1. Based on the pedigree above, does the inheritance pattern of Becker's muscular dystrophy appear to be X-linked or autosomal? _____
2. Does the inheritance pattern of Becker's muscular dystrophy represent a dominant or recessive disorder? How do you know? _____
3. Individual IV-6 (marked by an asterisk) is diagnosed with Becker's muscular dystrophy. What is the likely genotype of his mother? Could this individual have inherited the disorder from his dad? _____
4. What are the possible genotypes of the children of individual IV-6? Assuming this individual's partner is WT, what is the likelihood that the this individual's children have Becker's muscular dystrophy? _____
5. In the third generation, a female individual (III-1) shows symptoms of Becker's muscular dystrophy. How is this possible? _____
6. Name the individuals in the 4th generation that are affected by the disorder. _____
7. Name the individual(s) in the 2nd generation that are carriers. _____