



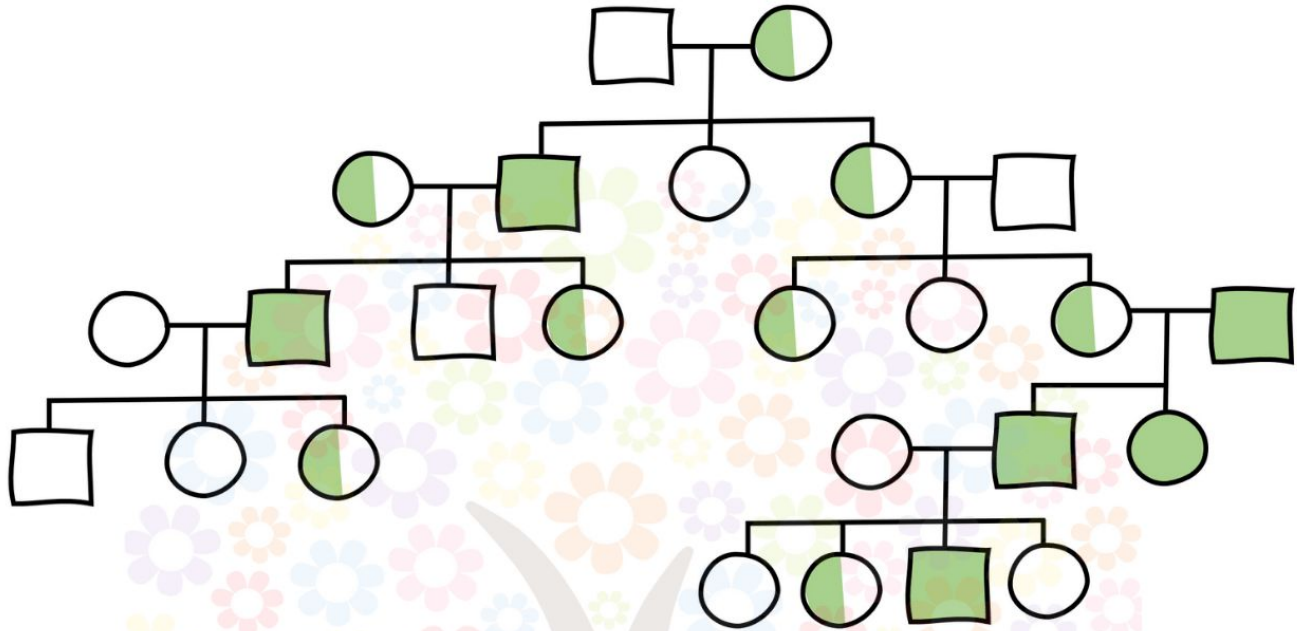
Pedigree Worksheet 4: X-Linked Recessive Traits

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Name

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Comprehension Skills



1. Red-green color blindness is an example of an X-linked recessive condition. Using the pedigree above, answer the following questions:

a. Determine the genotypes of each individual.

b. Explain what the half-filled in circles symbolize. Are these individuals affected by red-green color blindness? Why or why not? _____

c. Why are there no half filled-in squares? _____

d. In the second generation, a male individual has a son that is affected, as well. How is this possible? _____

e. Several individuals on this chart are completely unaffected by the mutation. Why is this? _____

f. In this case, we know that the pedigree schematic represents the inheritance patterns of an X-linked recessive trait. What are some clues that support this conclusion? _____

g. If this pedigree represented an autosomal recessive disorder, instead, what change(s) would you expect to observe in the inheritance patterns of the chart? _____