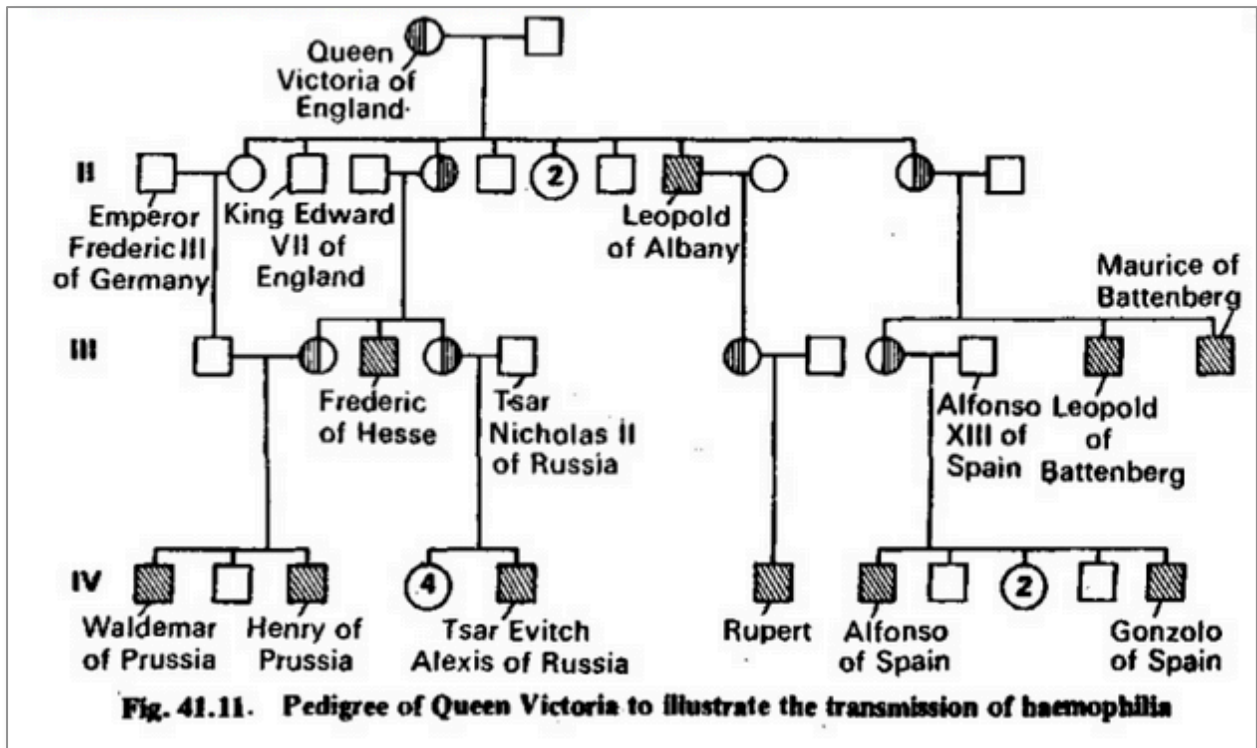


Warm-Up: Hemophilia In The Royal Family

Hemophilia is sometimes referred to as “the royal disease,” because it affected the royal families of England, Germany, Russia and Spain in the 19th and 20th centuries. Queen Victoria of England, who ruled from 1837-1901, is believed to have been the carrier of hemophilia B, or factor IX deficiency. She passed the trait on to three of her nine children. Her son Leopold died of a hemorrhage after a fall when he was 30. Her daughters Alice and Beatrice passed it on to several of their children. Alice’s daughter Alix married Tsar Nicholas of Russia, whose son Alexei had hemophilia. Their family’s entanglement with Rasputin, the Russian mystic, and their deaths during the Bolshevik Revolution have been chronicled in several books and films. Hemophilia was carried through various royal family members for three generations after Victoria, then disappeared.



1. How many generations are shown in the pedigree? _____
2. How many offspring did the parents in the first generation have? _____
3. What is the symbol for males? _____ What is the symbol for females? _____
4. How many carriers are in the 2nd generation? _____ What is it’s symbol? _____
5. Which members of the family are afflicted with Hemophilia? _____

6. How are individuals IV-7 and I-1 related? _____ III-4 and III-5? _____
7. What type of inheritance is hemophilia? Explain. _____
