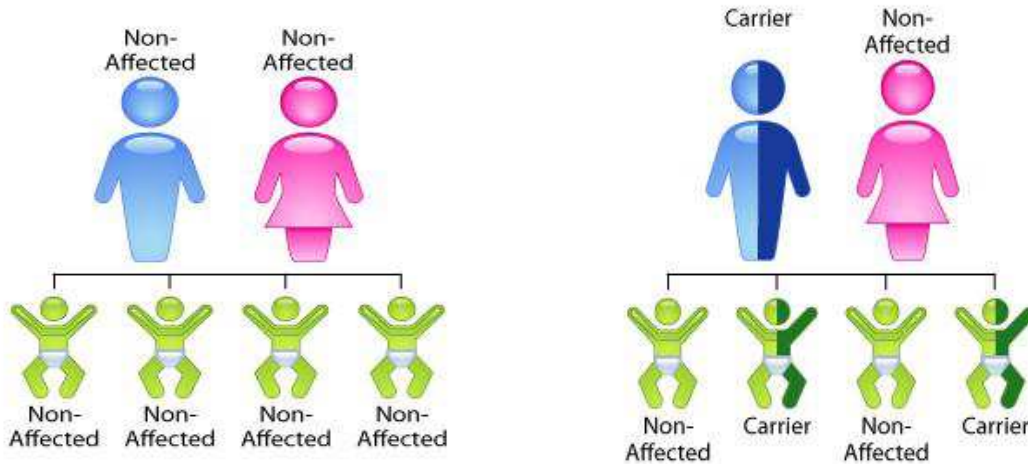


Name \_\_\_\_\_ period \_\_\_\_\_  
 date assigned \_\_\_\_\_ date due \_\_\_\_\_ date returned \_\_\_\_\_

## Pedigree Questions



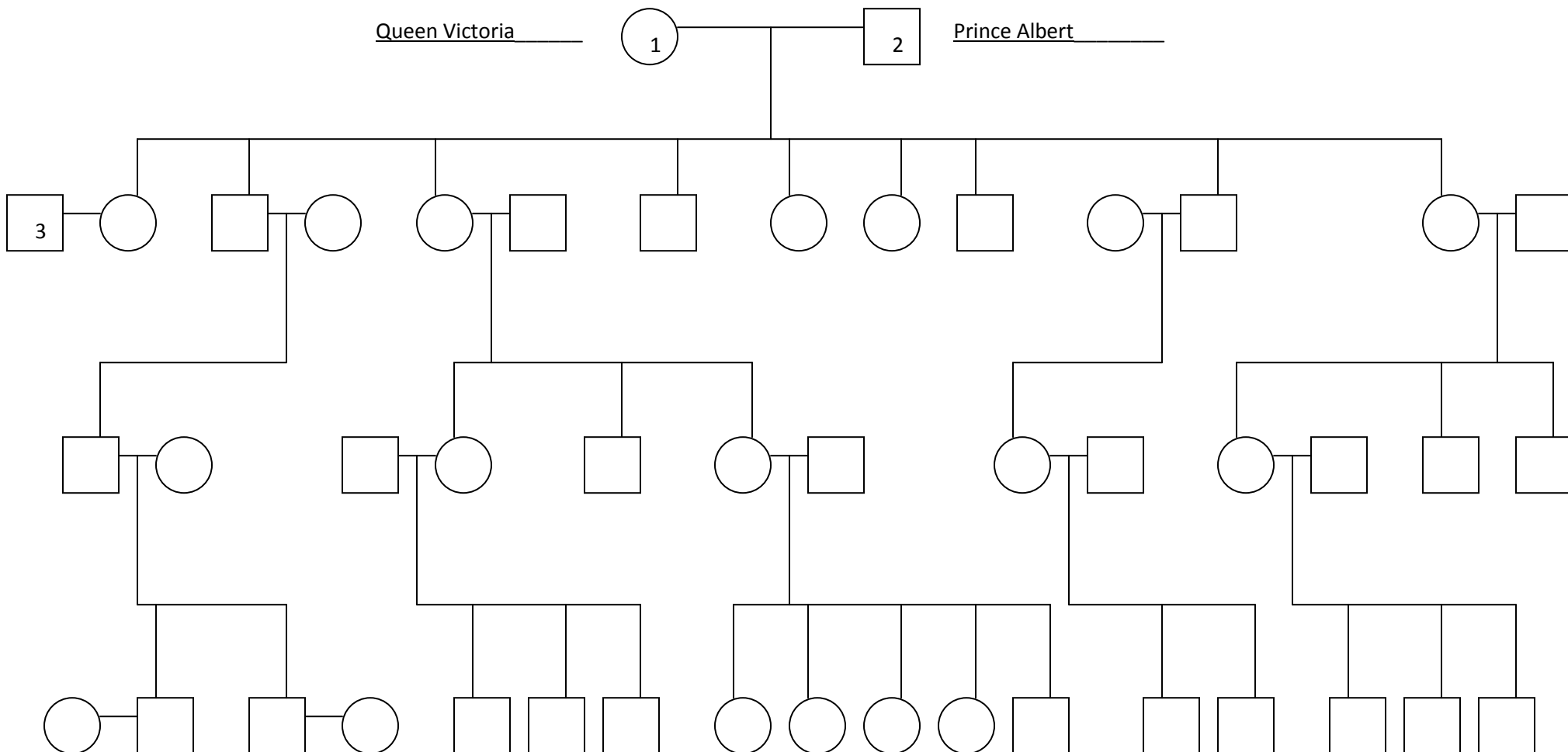
1. Which numbers are the children of 7 and 8? \_\_\_\_\_
2. What do all of the carriers have in common? \_\_\_\_\_
3. What do all those with hemophilia have in common? \_\_\_\_\_
4. What relation is number 22 to queen Victoria? \_\_\_\_\_
5. What can you say about Alexis (does he have hemophilia)? \_\_\_\_\_

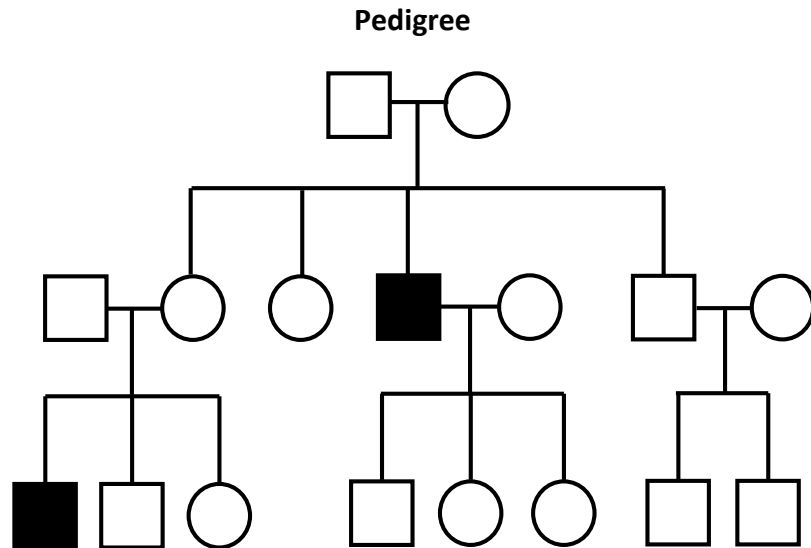
**Complete the following statement by using inferences (common sense). Circle the right answer choice.**

6. For hemophilia, are the mothers or fathers carriers? \_\_\_\_\_
7. Do the male offspring or the female offspring get the disease? \_\_\_\_\_
8. Do all of the sons get hemophilia? \_\_\_\_\_
9. Are all of the daughters carriers? \_\_\_\_\_

### Hemophilia Pedigree Chart for Queen Victoria and Prince Albert

To make the chart less complicated, 10 individuals have been left off of the 3<sup>rd</sup> generation and 8 individuals have been left off of the 4<sup>th</sup> generation.



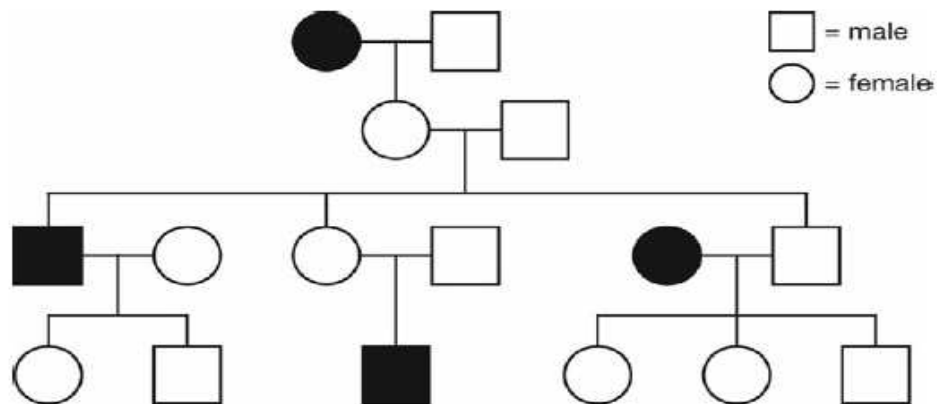


- 26** According to the diagram, which individuals have the trait that is traced by the pedigree?
- A** 2 and 3
  - B** 6 and 10
  - C** 2, 3, 14 and 15
  - D** 2, 3, 6, 10, 14 and 15
- 27** What genetic disorder was found in the Russian royal family?
- F** measles
  - G** AIDS
  - H** hemophilia
  - J** cystic fibrosis

- 28** Which of these statements correctly describes a difference between sex-linked disorders and other inherited genetic disorders?
- A** Sex-linked disorders can be passed on from parent to child, but other genetic disorders cannot be passed on.
  - B** Only males can be affected by sex-linked disorders, but both males and females can be affected by other inherited genetic disorders.
  - C** The genes for sex-linked disorders are found on sex chromosomes, but the genes for other inherited genetic disorders are found on other chromosomes.
  - D** The inheritance of a sex-linked disorder within a family can be traced using a pedigree, but other genetic disorders cannot be traced using a pedigree.
- 
- 29** Alisha and Rob would like to have children. A genetic counselor tells them they are both carriers of a certain genetic disease. What does this mean?
- F** They are both immune to the disease, and it is very likely that their children would also be immune.
  - G** There is a very high probability that one of both of them will develop the disease at some point in the future.
  - H** They both have the disease, but there is a very low probability that they will pass it on to their children.
  - J** They both have an allele for the disease and could pass this allele on to their children, even though neither of them is affected by the disease.

- 30** Which of the following statements about pedigrees is true?
- A** Squares typically represent males and circles represent females.
  - B** Pedigrees can only be used to trace the occurrence of dominant traits.
  - C** Shaded shapes represent people who do not have a specific trait.
  - D** Pedigrees show all of the allele combinations that are possible in a cross.

- 31** Jake made the following pedigree chart to trace the traits of straight and curly hair in his family.



A shaded circle or square in Jake's pedigree represents a person with straight hair. Is straight hair controlled by a dominant allele or a recessive allele? What led to your conclusion? How do you know that straight hair is not sex-linked?

---



---



---



---



---



---