

SECTION 12-2 REVIEW

HUMAN GENETICS

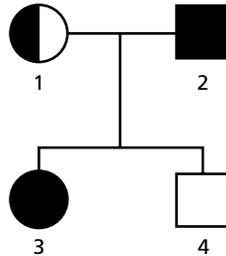
VOCABULARY REVIEW State the pattern of inheritance of each of the following genetic disorders.

1. Huntington's disease _____
2. cystic fibrosis _____
3. hemophilia _____
4. Duchenne muscular dystrophy _____
5. phenylketonuria _____

MULTIPLE CHOICE Write the correct letter in the blank.

_____ 1. Which individual in the pedigree shown below is a carrier?

- a. 1
- b. 2
- c. 3
- d. 4



_____ 2. Since the ABO blood group alleles are codominant, an individual with the genotype $I^A I^B$ will have blood type

- a. A.
- b. B.
- c. AB.
- d. O.

_____ 3. Which of the following human traits is not a polygenic trait?

- a. skin color
- b. eye color
- c. height
- d. ABO blood type

_____ 4. A trait whose expression is affected by the presence of sex hormones is said to be

- a. sex-influenced.
- b. sex-linked.
- c. X-linked.
- d. Y-linked.

_____ 5. In humans, the genotype XO results from

- a. trisomy.
- b. nondisjunction.
- c. inversion.
- d. insertion.

SHORT ANSWER Answer the questions in the space provided.

1. Why is pattern baldness more common in men than in women? _____

2. Explain the genetic basis of Down syndrome and Klinefelter's syndrome. _____

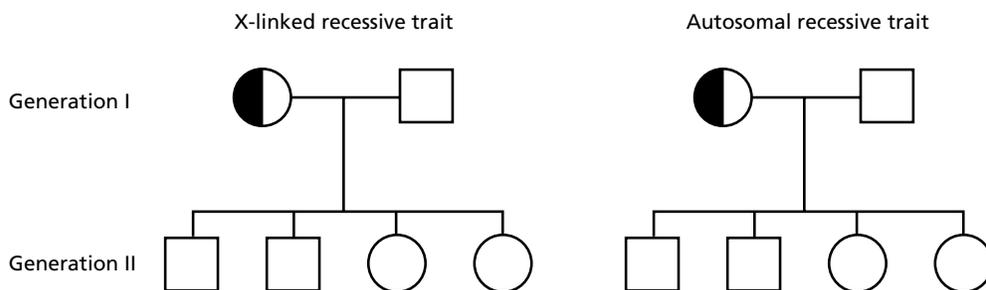
3. Briefly describe how amniocentesis and chorionic villi sampling are used in genetic screening.

4. Explain the difference between a sex-linked trait and a sex-influenced trait.

5. **Critical Thinking** A couple has four children, and each child has a different ABO blood type.

What are the blood types and genotypes of the children and the parents? _____

STRUCTURES AND FUNCTIONS In the two pedigrees below, indicate all possible offspring in generation II by correctly filling in the male and female symbols for generation II. Use a completely filled symbol to represent an individual who displays the trait and a half-filled symbol to represent a carrier.



HRW material copyrighted under notice appearing earlier in this work.