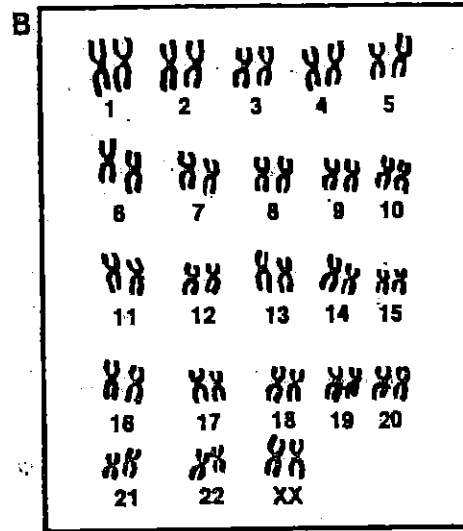
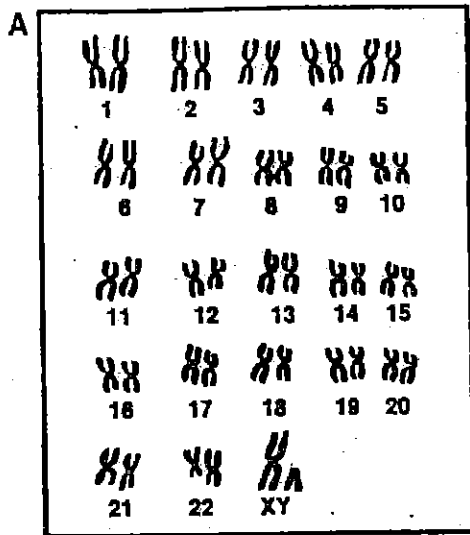


Name _____ Date _____ Class _____

THE ROLE OF CHROMOSOMES

In your textbook, read about sex—a genetic trait in Section 27:1.

1. Examine the chromosomes shown below from two people. Then, answer the questions that follow.

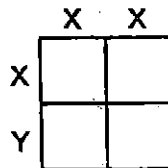


a. Is person A male or female? _____ How do you know? _____

b. Is person B male or female? _____ How do you know? _____

c. Circle the sex chromosomes of each of the above people.

2. Complete the Punnett square.
Then, answer the questions below.



a. Out of four children, how many are expected to be female? _____

b. Out of four children, how many are expected to be male? _____

c. Which sex chromosome do both males and females have? _____

d. Which sex chromosome do only males have? _____

e. Shade the female offspring in the above Punnett square. Leave the male offspring unshaded.

Name _____ Date _____ Class _____

GENETIC DISORDERS

In your textbook, read about hemophilia in Section 27:3.

1. In the boxes below each of these people, draw the sex chromosomes. Then, on the chromosomes write the genes they have for hemophilia. The dominant gene is *H*. The recessive gene is *h*.

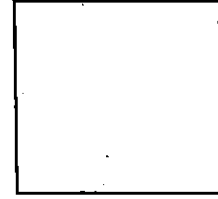
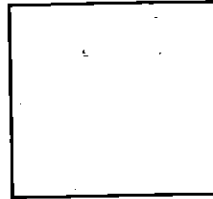
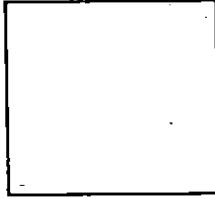
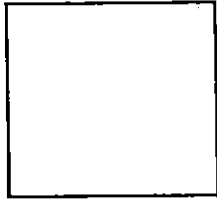
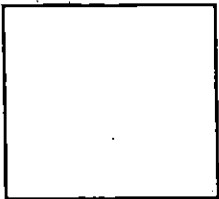
Normal,
pure dominant
female

Female with
hemophilia

Normal male

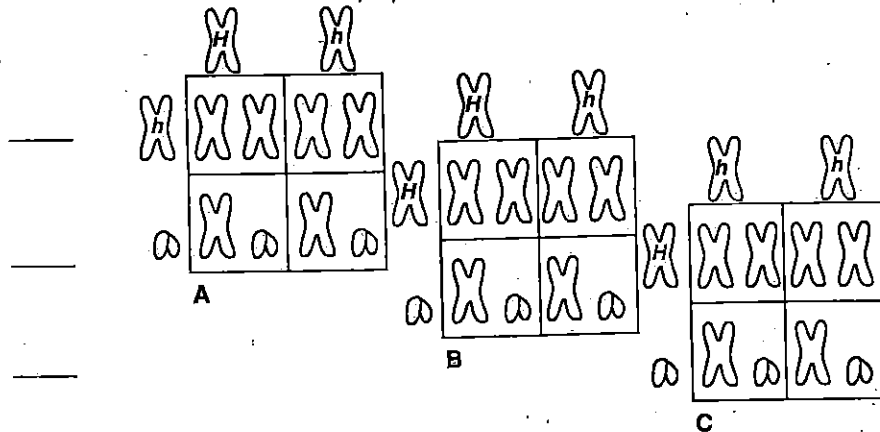
Male with
hemophilia

Normal,
heterozygous
female

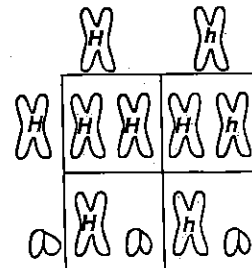
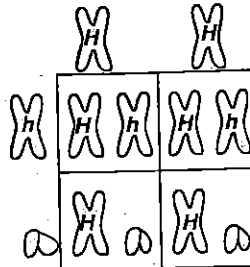
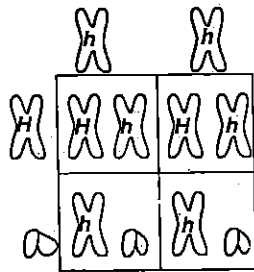
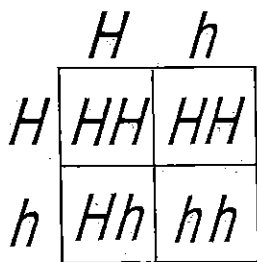


2. Complete the following Punnett squares. Then, match the correct Punnett square with each one of the following expected results. Write the letter of the Punnett square on the line next to the expected result it matches.

Expected results
2 normal females 1 normal male 1 male with hemophilia
1 normal female 1 normal male 1 female with hemophilia 1 male with hemophilia
2 normal females 2 males with hemophilia



3. Circle the Punnett squares that show individuals with hemophilia.



4. Describe the condition of hemophilia. _____