

VLA Basic Biology: Unit 23 Worksheet

1. What are the sex chromosomes of a female? _____
2. What are the sex chromosomes of a male? _____

Hemophilia is a recessive sex-linked genetic disorder that impairs the body's ability to clot the blood when a blood vessel is broken. The alleles are carried on the "X" chromosomes.
Alleles: "H" for the dominant allele which represents normal blood clotting.
"h" for the recessive allele which represent the hemophiliac condition.

3. What is the genotype for a hemophiliac female? _____
4. What is the genotype for a hemophiliac carrier female? _____
5. What is the genotype for a hemophiliac male? _____
6. In the Punnett square below, cross a hemophiliac female and a normal blood clotting male.

7. From the Punnett square above, what is the probability of a hemophiliac male? _____
8. From the Punnett square above, what is the probability of a hemophiliac female? _____

9. In fruit flies eye color is a sex-linked trait carried on the "X" chromosomes.

Red eye (Dominant) = R, White eye (Recessive) = r

In the Punnett square below, cross the following parents: Red eye carrier female x Red eye male

10. From the Punnett square above, what is the probability of a red eye male? _____