

SEX-LINKED TRAITS WORKSHEET

NAME: _____

1. Give the genotypes for the following sets of couples.

R is dominant to r. Colorblindness is a recessive disorder.

- a. Colorblind female and normal male _____ x _____
- b. Carrier female and normal male _____ x _____
- c. Carrier female and colorblind male _____ x _____
- d. Colorblind female and colorblind male _____ x _____
- e. Normal female and colorblind male _____ x _____

Hemophilia is a sex-linked recessive trait. H is dominant over h.

2. Mother is a carrier female and father is a normal male.

_____ x _____

Perform the cross

- a. From whom did the son inherit hemophilia? Mom or Dad
- b. Could the mother and father have a son that does not have hemophilia?
- c. Could the mother and father have a daughter who has hemophilia?
- d. Could they have a daughter that is a carrier?

3. Suppose the hemophilia son marries a woman who does not have hemophilia and is not a carrier. They end up having children.

Genotypes of parents: _____ x _____ **Perform the cross**

- a. Could any of the sons have hemophilia?
- b. Could any of the daughters have hemophilia?
- c. Could any of the daughters be carriers?

4. A woman who has hemophilia marries a normal man. ^{What percentage of} ~~How many of~~ their children will have hemophilia, and what is their sex?

Parent genotypes _____ x _____ **Perform the cross**