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. How many of their children will have hemophilia, and what is their sex?

Parent genotypes ____________ x ____________ Perform the cross