

Name: _____ Date: _____

PUNNETT SQUARES WORKSHEET

Red-Green color blindness is an X-linked recessive disorder. Since normal vision is dominant, it is typically represented as X^B . Color blindness is shown as X^b . If a normal female wants to have children with a color-blind male, what is the probability of having a son who is color blind? What is the probability of having a daughter who is color blind? What is the probability of having a daughter who is a carrier? In addition, determine the genotypes of the two parents.

Genotype of Mother _____
Genotype of Father _____
Color-blind Son _____
Color-blind Daughter _____
Carrier Daughter _____

If a color-blind female wants to have children with a normal male, what is the probability one of their sons could be color blind? (Only the sons should be factored into this calculation). What is the probability one of their daughters color blind? What is the probability one of their daughters a carrier? In addition, determine the genotypes of the two parents.

Genotype of Mother _____
Genotype of Father _____
Color-blind Son _____
Color-blind Daughter _____
Carrier Daughter _____