

Sample Public Genetic Crosses

In humans, normal color vision (R) is dominant to color blindness (r). This is a sex-linked trait (X-linked). Brown eye color (B) is dominant to blue eye color (b). If a color blind, heterozygous brown-eyed female mated with a normal, blue-eyed male, what percentage of the offspring would be color blind, blue-eyed males? Show your workings.

In a cross between two pea plants, 50% of the offspring were tall and 75% had round seeds. If tallness (T) is dominant to dwarfness (t) and round seeds (R) are dominant to wrinkled seeds (r), what are the genotypes of the parents? Show all your workings.