

Problems discussed in the videos:

Video (1)

In sesame plants, the one-pod condition (P) is dominant to the three-pod condition (p), and normal leaf (L) is dominant to wrinkled leaf (l). Pod type and leaf type are inherited independently. Determine the genotypes for the two parents for all possible matings producing the following offspring:

318 one-pod normal, 98 one-pod wrinkled

Video (4)

Wild type pea plants have thick stems. A scientist crossed a true-breeding line with thin stems to a wild type plant. All the F1 progeny had thick stems. The mutant line is named ts for "thin stems". What can you conclude about the ts true-breeding line?

- (a) Homozygous for dominant mutant type allele
- (b) Heterozygous for dominant mutant type allele
- (c) Homozygous for recessive mutant type allele
- (d) Heterozygous for recessive mutant type allele
- (e) Homozygous for wild type allele