

- 1 What is the process by which organisms are made to be homozygous for most traits called?
- A Hybridization
  - B Inbreeding
  - C Test crossing
  - D None of the above
- 2 In order to determine the genotype of an organism, researchers can perform a test cross between the unknown organism and an organism that is —
- A homozygous dominant.
  - B heterozygous.
  - C homozygous recessive.
  - D All of the above
- 3 You perform a test cross and conclude that the unknown genotype is homozygous dominant. What phenotypic ratio (dominant to recessive) will the offspring of the test cross show?
- A 1:0
  - B 1:1
  - C 0:1
  - D 2:1
- 4 What are the organisms that contain foreign DNA called?
- A Xenogenic
  - B Intergenic
  - C Palindromic
  - D Transgenic
- 5 Foreign pieces of DNA are transferred into organisms by being packaged into —
- A restriction enzymes.
  - B vectors.
  - C carrier enzymes.
  - D None of the above
- 6 Before two genes can be spliced together, they must both be cleaved by a —
- A restriction enzyme.
  - B gene gun.
  - C micropipette.
  - D None of the above
- 7 By what process can DNA strands of different lengths be separated out?
- A Gene splicing
  - B DNA cloning
  - C Gel electrophoresis
  - D None of the above
- 8 What is the total number of genes in an individual organism called?
- A Chromosome
  - B Linkage map
  - C Genome
  - D None of the above
- 9 In creating a linkage map, you must analyze the frequency of recombination in the genome. What would a very low frequency of cross-over indicate about two genes?
- A They are on the same chromosome but very far apart.
  - B They are on the same chromosome and very close together.
  - C They are on different chromosomes.
  - D It cannot be determined from the information given.
- 10 What is the process of analyzing the unique pattern of DNA fragments resulting from restriction enzyme cleavage called?
- A Gene splicing
  - B Gene therapy
  - C Genetic engineering
  - D DNA fingerprinting