

Genetics Test Review

1. What did Mendel do to develop his ideas of genetics?
2. What organism does Mendel's ideas on heredity apply?
3. Describe the P generation
4. Describe the F1 generation and how it was developed.
5. Describe the F2 generation and how it was developed.
6. Genes –
7. Allele-
8. Hybrid-
9. Pure-
10. Genotype-
11. Give an example of a homozygous dominant genotype, a homozygous recessive genotype and a heterozygous genotype.
12. Phenotype-
13. What is the genotype for an individual that shows a recessive phenotype?
14. Traits-
15. Homozygous-
16. Heterozygous-
17. Probability -
18. Why are punnet squares used?
19. Principal of independent assortment –
20. Law of segregation-
21. What is the difference between dominant and recessive alleles?
22. Purple flowers are dominant over white flowers. A plant that is heterozygous for flower color is crossed with a plant that has white flowers. Use a punnet square to show all the possible offspring. Give the percent for each genotype and phenotypes.
23. Purple flowers are dominant to white. A hybrid flower is crossed with a white flower and produce 20 offspring. How many are expected to be white?

Genetics Test Review

1. What did Mendel do to develop his ideas of genetics? Cross pollination of pea plants
2. What organism does Mendel's ideas on heredity apply? All organisms
3. Describe the P generation- pure plants that are crossed
4. Describe the F1 generation- all have dominant phenotype (heterozygous)
5. Describe the F2 generation- 75% dominant phenotype, 25% recessive phenotype
6. Genes – factors that control traits
7. Allele- different forms of a gene
8. Hybrid-organism that has two different alleles for a trait
9. Pure- when breed the offspring all have the same trait
10. Genotype-organism genetic makeup
11. Give an example of a homozygous dominant genotype, a homozygous recessive genotype and a heterozygous genotype. RR, rr, Rr
12. Phenotype- organisms physical appearance, what traits are expressed
13. What is the genotype for an individual that shows a recessive phenotype? rr
14. Traits- physical characteristics studied in genetics
15. Homozygous- organisms that have two identical alleles
16. Heterozygous-organism that has two different alleles
17. Probability -the likelihood that a particular event will occur
18. Why is a punnet square used- predict the outcome of a genetic cross
19. Principle of independent assortment -during gamete formation genes for different traits separate without influencing each other's inheritance
20. Law of segregation- the genes on chromosomes separate during meiosis so you inherit only one gene from each parent.
21. What is the difference between a dominant and recessive alleles? Dominant will mask the recessive trait
22. Purple flowers are dominant over white flowers. A plant that is heterozygous for flower color is crossed with a plant that has white flowers. Use a punnet square to show all the possible offspring. Give the percent for each genotype and phenotypes. 50% Pp-purple , 50% pp-white
23. What is co-dominance- in the heterozygous genotype both alleles are expressed equally
24. what is incomplete dominance- In the heterozygous genotype the trait expressed is in between the dominant and recessive phenotype
25. For blood type AB cross a person with type AB. What are the genotypes possible? Type A, B, AB